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Seek to Examine Blackmer and O'Neil Before French Court

By Lawrence E. Smith

N.P.N. STAFF WRITER

CLEVELAND, O., Feb. 10

EFFORTS of special counsel for the government, A. W. Pomerene and Owen J. Roberts, to obtain the testimony of three men for use in the trial of Teapot Dome suit March 9, now appear to be a race against time.

The three are James E. O'Neil, former president of the Prairie Oil & Gas Co., Henry M. Blackmer, chairman of the board of the Midwest Refining Co. and Henry S. Osler, prominent attorney of Toronto. The two first named are in France and Osler is supposed to be hunting big game in Africa.

The latest move in the somewhat complicated procedure the counsel for the United States have followed was the obtaining of letters rogatory, or a special commission, from the federal court at Cheyenne, Wyo. to take testimony of Messrs. Blackmer and O'Neil in France.

The purpose of getting the statements of these men involves the Continental Trading Co., a Canadian corporation, which bought from the Humphreys interests 33,000,000 barrels of Mexia crude oil. The contract on this, says the government, was assigned on the same day it was executed, to the Prairie Oil & Gas Co. and the Sinclair Crude Oil Purchasing Co. at an advance of 25 cents per barrel over what was paid to Humphreys.

The government sometime ago asserted it had traced $90,000 in Liberty Bonds as having been part of the profits in the deal, turned over to Albert B. Fall, secretary of the interior at the time Teapot was leased. It is now said that an additional $140,000 has been traced the same way. Blackmer and O'Neil are said to have participated in the execution of the contract for Mexia oil and the government seeks to prove that it all figured in the Teapot transaction.

The race against time is this: Following the issuance of the commission from the federal court in Cheyenne the original of which must be given to the Secretary of State, attested by him and by the Attorney General, sent to France to Ambassador Herrick, presented by him to a French court and subpoenas served by that court upon Messrs. Blackmer and O'Neil. The order of the federal court at Cheyenne provided that 15 days notice must be given to the counsel for the two men in France. That notice was given on Feb. 9.

The government will be represented in France by counsel who will be advised as to the course of action to pursue. What is sought is to ask the two men certain questions respecting the Continental Trading Co. as bearing on the Teapot transaction, obtain their answers in the form of signed statements and get these back in time for the trial in Cheyenne, March 9.

The case there is a proceeding in equity, similar to the one heard in the California federal court in the Elk Hills naval reserve case against the Doheny interests, asking for cancellation of the contract.

Delivery by Airplane

Immediately after Judge T. Blake Kennedy, of the federal court at Cheyenne issued the letters rogatory on Saturday, the documents were sent by air mail from Cheyenne to Philadelphia and were delivered to Owen J. Roberts, government counsel less than 48 hours later. Every minute is being used to best advantage, as the transcript of the Blackmer and O'Neil testimony must be in the hands of the federal court at Cheyenne before the opening of the trial.

Counsel for the Mammoth Oil Co. opposed the granting of the letters rogatory and, after their issuance intimated that arrangements would be made to cross-examine Blackmer and O'Neil when their testimony is taken in France.

Just what success the government will have in getting information of value from Blackmer and O'Neil is problematical. An intimation along this line however, was provided by George Gordon Battle, New York attorney, who has been retained by Blackmer. Battle filed an affidavit in the federal court at Cheyenne in opposition to the petition for letters rogatory, in which he asserted that Blackmer had said that he would neither return to this country to testify nor would he testify in France. Battle had sometime previously conferred with Blackmer in France. Battle also told the court in Cheyenne he also bore word from O'Neil, not as counsel, but rather as a messenger, that he viewed the matter in the same way as did Blackmer.

The government answer to that affadavit was that it was not within the province of a man to say before he had been summoned whether he would or would not testify. So far as the government was concerned it was merely assumed that the men in France had something of value to disclose and the way to find out for certain was to get them into court.

Want Them On Record

While it is considered problematical by the government counsel whether O'Neil and Blackmer will submit to the taking of their depositions in the case, the counsel want them on record before the French courts as having made such refusal. They do not consider it sufficient that they send word through their attorneys that they will not testify.

What is in the minds of the government counsel throughout their handling of the case is the fact that they are representing the American public, which is entitled to know how the case has been handled what delays have been

experienced and so on. The counsel want the public eventually to know through the court record of every move that has been made by either party.

It is not believed that delay will be encountered in France, so far as the courts there are concerned. Some weeks ago Ambassador Herrick sounded out the French ministry of justice as to the procedure which would be required to bring O'Neil and Blackmer into court. The plan was fully outlined and assurances were given that the French authorities would lend every assistance to the United States government.

O'Neil is living in Cannes, France, and Blackmer is living in Paris.

As to the H. S. Osler end of the affair, the government attorneys some time ago won a decision in the Ontario supreme court, by virtue of which Osler was ordered to answer questions which commissioners acting for this government might ask him. Osler was the head of the Continental Trading Co. Prior to the decision of the Toronto court Osler left Toronto, presumably to hunt big game in Africa, and no official knowledge of his whereabouts has been gained.

Then the attorneys for Osler went into the appellate division of the Ontario court, appealing from the former decision, and that matter was argued Feb. 9. Decision on this appeal has not been given. Should it be favorable to the government, it is planned to take testimony of Osler's associates on Feb. 20. These include a law partner of Osler's, the secretary to Osler, who had charge of the Continental Trading Co. records and other office associates who were directors of the Continental company.

This testimony will be taken by the commissioners, who are the United States counsul at Toronto and a member of the bar at Ontario.

If this decision goes against Osler he has two courses of action left, besides compliance with the order, to avoid or delay punishment for contempt in refusing to answer the government's questions. One course is to appeal to the Supreme Court of the Dominion and the other is to appeal to the Privy Council of the British Empire.

Government Petition Discussed

The petition filed by the government in the court at Cheyenne was discussed in an article published in the Feb. 10 issue of the New York Times, part of which summary is as follows:

"In the application for letters rogatory filed by Messrs. Roberts and Pomerene in Cheyenne and signed Saturday night by Judge Kennedy, the government says the testimony of the two former oil corporation officials is essential to the proper trial of the Teapot Dome case. Both Blackmer and O'Neil, it is asserted, are in a position to testify concerning all the activities of the defunct Continental Trading Co., Ltd., including the 'profits of the company and the purchase there out of United States Liberty Bonds, the distribution of the Liberty Bonds in the form of dividends, and by whom and in what proportion received, and in particular the delivery of the Liberty Bonds by the Continental Trading Co., to Harry F. Sinclair,' and that, if compelled to disclose information they have, they will 'testify that the bonds became the property of Harry F. Sinclair, who is an officer of the Mammoth Oil Co.'

"Furthermore, Messrs. Roberts and Pomerene assert that they have every reason to believe that they will be able to prove in the Teapot Dome trial 'that the Liberty Bonds delivered to Harry F. Sinclair were, at or about the time of the execution of this lease (the Teapot Dome), delivered by Harry F. Sinclair to Albert B. Fall, who at the time of the execution of the lease, and at the time of the delivery of the bonds to him, was the Secretary of the Interior of the United States, and that Albert B. Fall used the Liberty Bonds delivered to him as his own, sole and separate property.'

"The government petition for letter rogatory next refers to the efforts to get Messrs. Blackmer and O'Neil to return to the United States, efforts in which Secretary of State Hughes and Myron T. Herrick, the American ambassador to France, played a leading part.

"'Upon definitely ascertaining,' the petition reads, 'that H. M. Blackmer and James E. O'Neil were interested in the Continental Trading Co., Ltd., and had knowledge of the matters pertaining to its affairs and transactions, steps were immediately taken by special counsel for the United States to locate them and now allege that James E. O'Neil has leased a villa at Cannes in the Department of the Alps, Maritimes, France, and is now residing there with his family, and also allege that H. M. Blackmer has leased apartments in the city of Paris and is using the same as headquarters while traveling from time to time by motor in the French Republic.'

Herrick Called to Aid

"The affidavit next tells about Mr. Roberts and Senator Pomerene appealing to Secretary Hughes, who took the matter up with Ambassador Herrick in Paris and asked him to use his best efforts to persuade the American sojourners to return to their native land and help the government clear up and bring to an end the litigation involving the leasing of the Teapot Dome and the disposition of the Liberty Bonds which figured in the resale of the Mexia oil to the Prairie Oil & Gas Co., and the Sinclair Co.

"Accordingly, Ambassador Herrick got in touch with Mr. Blackmer and Mr. O'Neil, told them of the situation which existed, and urged them to return immediately to the United States. Mr. O'Neil informed the Ambassador that, owing 'to the state of his health,' he could not promise to return. Mr. Blackmer told Mr. Herrick he would think the proposition over.

"Subsequently, both sent word by Mr. Battle that they were not going to return.

"This was only a short time ago. Mr. Roberts and Senator Pomerene again sought the assistance of Secretary Hughes, who this time appealed, through Ambassador Herrick, direct to the French ministry of justice and put the question as to what the attitude of the French authorities would be if this government, as it desired to do, asked their assistance in getting the testimony of Blackmer and O'Neil. Secretary Hughes asked if the courts of France would honor letters rogatory issued by the proper United States court calling for the examination in open court of Blackmer and O'Neil.

"Ambassador Herrick carried Mr. Hughes' request to the French Ministry of Justice and assurance was given to him that letters rogatory, if issued, would be 'honored and executed by the courts of France.'

"The letters rogatory are in the form of a request from President Coolidge to the President of the French Court of First Instance.

The Letter Rogatory

"The letter rogatory in the case of Blackmer reads, a similar document being sent in the case of O'Neil:

"In the district court of the United States for the District of Wyoming.

"United States of America, Plaintiff, v. Mammoth Oil Company, a Corporation of the State of Delaware: Sinclair Crude Oil Purchasing Company, a Cor-

(Continued on page 20)

Crude Price Changes

Feb. 4.—Standard Oil Co. of California advanced crude in all California fields ranging from 25 cents on heavy oils to 45 cents on lighter grades, except crude in the Rosencrans-Athens field where the advance was from 46 to 58 cents, depending on gravity.

* * *

Feb. 5.—Humble Oil & Refining Co. advanced Mexia and Wortham crudes 5 cents to $1.80 per barrel, and was met on the same day by The Texas Co., and on Feb. 6 by Magnolia Petroleum Co.

* * *

Feb. 6.—Sinclair Crude Oil Purchasing Co. advanced Mid-Continent and North Texas crude of 41.6 and above gravity to $2.00. Prairie Oil & Gas Co. on the same day advanced 42 and above gravity in Mid-Continent and North Texas fields 5 cents to $2.00 per barrel. The Texas Co. met the advance the same day in fields where it purchases, and Humble Oil & Refining Co. met it on Feb. 7 in North Texas and Ranger fields, and Magnolia Petroleum Co. met it on Feb. 7.

Quebec, Manitoba, to Raise Gas Tax

OTTAWA, ONT., Feb. 9.—Gasoline taxes in Quebec and Manitoba will be increased 2 cents each, according to announcements just made. The present tax of 2 cents in Quebec went into effect April 1, 1924, and from that date to the end of the year, brought in a revenue of $425,508. The present increase in the tax is being imposed to make up for loss of revenue the government will sustain by reducing the rate of interest from 3 per cent to 2 per cent on moneys borrowed from it by the municipalities for road building purposes.

Present gasoline tax in Manitoba is 1 cent.

THIS WEEK'S MARKETS SUMMARIZED

Crude Production By Districts

OKLAHOMA

	Feb. 7	Jan. 31
Bristow	33,450	35,510
Burbank	57,000	58,300
Cushing	23,110	23,250
Cromwell	37,040	36,240
Healdton	15,650	15,700
Hewitt	16,520	16,670
Osage, except Burbank	35,250	35,800
Papoose	36,825	38,160
Tonkawa	95,173	97,270
Wewoka	10,580	11,915
Other fields	114,000	114,150
Total	476,598	482,965
Decrease		6,367

KANSAS

Augusta-Douglass	3,400	3,400
Blankenship District	2,680	2,700
Elbing-Peabody	6,110	6,120
El Dorado	14,700	14,710
Fox-Bush	2,760	2,800
Greenwood County	25,000	25,200
Other fields	28,700	29,150
Total	83,350	84,080
Decrease		730

TEXAS AND COASTAL LOUISIANA

	Feb. 7	Jan. 31
Mexia, Richland, Currie	39,200	40,870
Wortham	81,200	84,215
Corsicana, Powell	57,300	58,765
Wichita Falls Dist	77,845	76,085
Ranger, lime	26,635	26,705
Ranger, sand*	10,590	10,100
West Texas: Reagan, Mitchell and Scurry Cos	12,710	12,680
Panhandle	1,025	1,200
San Antonio, Luling and Mirando	48,320	47,450
Coastal Texas	63,317	66,945
Coastal Louisiana	7,180	7,130
Total	425,322	432,145
Decrease		6,823

*Includes Young, Shackleford, Palo Pinto, Brown, Coleman and Callahan Counties.

Marketing

(Market News on pages 97-110)

Oklahoma-Kansas— Gasoline higher. Movement normal for season although some refiners believe jobbers are slow in building their stocks. Blends and naphtha stronger. Natural gasoline scarce and higher. Kerosene seems to be improving. Lubes firmer. Fuel oil easier.

North Texas—All products active. Gasoline, kerosene, gas and fuel oil prices higher. Only distillates are slow.

Chicago—Motor gasoline strong. Kerosene firmer due to belief there will be advances in kerosene tank wagon prices. Distillates and fuel oil soft.

California — Gasoline and fuel oils higher. Kerosene and lubes unchanged.

Pennsylvania—Gasoline strong and high. Kerosene quiet. Neutrals firm. Cylinder stocks marking time. Fuel scarce and strong.

New York Export—Gasoline buying lower as prices advance. Kerosene firmer. Bunker oil and lubes stronger. Waxes and petrolatums firm.

New Orleans Export—Gas oil active. Demand for Diesel improves. Bunker oil stronger. Gasoline demand slightly improved. Kerosene firm. Lube demand light but prices advance because of costlier crude.

Production Summary

Eastern	98,000	98,000
Total U. S.	1,921,930	1,937,414
Decrease	.....	15,484

CALIFORNIA

	Feb. 7	Jan. 31
Long Beach	120,000	120,000
Sante Fe Springs	48,000	48,000
Torrance	42,000	42,000
Huntington Beach	40,500	40,000
Dominguez	58,000	62,000
Rest of State	286,000	286,000
Total	594,500	598,000
Decrease		3,500

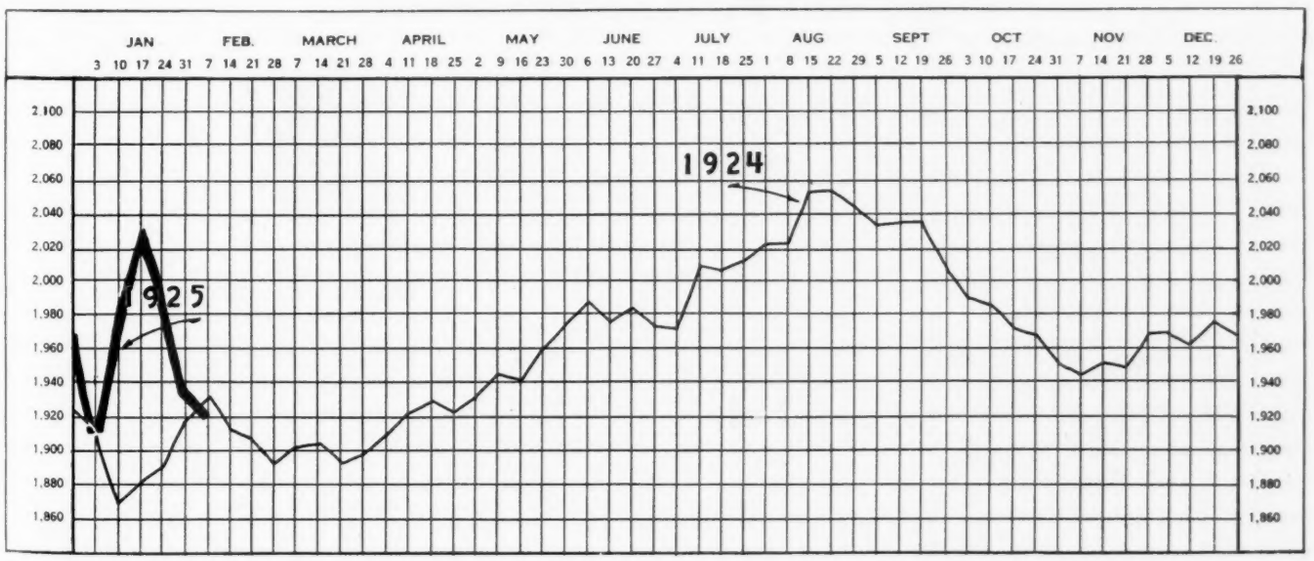
ROCKY MOUNTAIN

Fields	Feb. 7	Jan. 31
Salt Creek	60,900	58,800
Teapot	1,945	2,180
Big Muddy	3,120	3,125
Grass Creek	1,235	1,115
Elk Basin	780	760
Greybull, etc	90	65
Rock River	3,250	3,300
Lance Creek	700	775
Poison Spider	245	150
Osage	350	355
Hamilton Dome	200	100
Lander	275	250
Pilot Butte	45	40
Lost Soldier	4,730	4,745
Ferris	110	125
Craig	925	1,020
Fort Collins	675	750
Boulder	35	30
Florence	350	240
Cat Creek	3,725	3,800
Kevin-Sunburst	3,250	3,350
Artesia, H. M	985	1,000
Rattlesnake	115	100
Hogback	375	480
Miscellaneous	230	200
Totals	88,640	86,855
Increase	1,785	

NORTH LOUISIANA—ARKANSAS

Daily Average	Feb. 7	Jan. 31
Caddo, light	9,160	9,300
Caddo, heavy	2,150	2,150
DeSoto Red River	5,015	5,000
Homer	7,025	6,795
Haynesville	14,900	15,150
Bellevue	3,350	3,650
Cotton Valley	7,635	7,600
ElDorado	9,920	10,120
Smackover, light	33,050	32,150
Smackover, heavy	60,245	60,400
Stephens	1,970	1,980
Nevada county	1,100	1,074
Total	155,520	155,369
Increase	151	

Watch the Trend of the Week's Production



(Continued from page 18)

poration of the State of Delaware: Sinclair Pipe Line Company, a Corporation of the State of Maine, defendants.

"In equity—1431—Letters rogatory—the United States of America—district of Wyoming, SS:

"The President of the United States of America to any Judge or tribunal having jurisdiction of civil causes in the Republic of France, and especially to the President of the Court of First instance, greeting:

"Whereas there is now pending in our district court of the United States for the District of Wyoming a certain suit in equity in which the United States of America is the plaintiff and Mammoth Oil Company, Sinclair Crude Oil Purchasing Company and Sinclair Pipe Line Company are the defendants, and it has been suggested to us that Justice cannot completely be done between the said parties without the testimony of one H. M. Blackmer, who is now residing at Paris, in the department of the Seine et oise, within your jurisdiction:

"We therefore request you that, in furtherance of justice, you will, by the proper and usual process of your court, cause the said H. M. Blackmer, if within your jurisdiction, to appear before you or some competent person by you for that purpose to be appointed and authorized at a precise time and place by you to be named and fixed, then and there to make answers on his oath or affirmation to such questions as may be put to said witness by counsel for either party to the above-entitled suit in equity, and that you will cause his testimony to be taken stenographically, to be afterward reduced to writing, and to be signed by said witness, unless otherwise mutually agreed upon by counsel for both parties: the said testimony to be then returned to us under cover, addressed to the clerk of the district court of the United States for the district of Wyoming, at the city of Cheyenne, and State of Wyoming, in the United States of America, duly closed and sealed up, together with these presents.

"And it appearing to us that justice cannot be fully done in the premises by taking the testimony of said witness by his answers to be written interrogatories filed beforehand, we do request of you that you will permit and cause the examination of said witness to be made orally and viva voce (i. e., such examination to be by question and answer in the usual manner of direct, cross and redirect examination), permitting counsel for the respective parties to the above entitled suit in equity to be present to conduct such oral examination of said witness and to ask such questions as may seem to them fit, not requiring of you that you shall determine either the relevancy or competency of such.

"We have required of the plaintiff moving for these letters rogatory that it shall give notice to counsel for the defendants of the time and place of taking such testimony when you shall have named and fixed the same. And we shall be ready and willing to do the same for you in a similar case when required.

"Witness, The Honorable T. Blake Kennedy, Judge of the United States District Court for the District of Wyoming, and the seal of said District Court, at the City of Cheyenne, in the District of Wyoming, the 7th day of February in the year of our Lord one thousand nine hundred and twenty-five."

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Next Osage Sale is Set For March 18

WASHINGTON, Feb. 10.—Secretary of the Interior Work today authorized the sale by auction of oil leases on 56,000 acres in the Osage on March 18 at Pawhuska. Holding of the sale on this date is to comply with an act of congress requiring that approximately 100,000 acres of Osage lands be offered for oil leases each year prior to April 12.

During the past 12 months two Osage sales have been held, on June 30, 1924 and Dec. 18, 1924. A total of 44,923 acres were offered at these sales, leaving approximately 55,076 acres still to be offered for sale to comply with the law.

The Osage council recently adopted resolutions favoring the sale of oil leases at this time.

Rate Cut on Crude Is Postponed

By Special Correspondent

WASHINGTON, Feb. 9.—The Interstate Commerce Commission today suspended from Feb. 10 to June 10 schedules of the Gulf, Colorado — Santa Fe proposing to reduce rates on crude from San Angelo, Santa Anna, Bangs, Crusher and Brownwood, Tex. to Texas City for export or for coastwise shipment. A typical reduction proposed was from 24.5 cents to 12 cents per 100 pounds from San Angelo to Texas City.

The suspension was brought about by the protest of the Orient Railroad which claimed that the reduction would deprive it of much needed revenue. The reductions are said to be in accordance with the view on the Marland interests as to what the rates should be.

The Orient, on account of its financial ill health, has been taken under the particular care of the commission and the action of the Santa Fe interests in proposing to cut the rates in two was regarded as prima facie reason for a suspension until there could be inquiry into the subject.

Union Oil of California Bonds Go Quickly

NEW YORK, Feb. 6.—The offering of $10,000,000 10-year 5 per cent sinking fund gold bonds of the Union Oil Co. of California, were quickly oversubscribed, according to the underwriting bankers, Dillon, Read & Co. and Blair & Co. of New York and Union Trust Co. of Cleveland. The price was 96 to yield more than 5½ per cent.

In a statement issued in connection with the flotation of the bonds, W. L. Stewart, president of the company, reported earnings, after depreciation and depletion but before interest and federal taxes, amounting to $10,422,438 for the first nine months of the year as against $9,509,208 for the whole of 1923.

Present rate of production from the company's 506 wells in California is 44,000 barrels daily, according to Mr. Stewart. The company is purchasing around 52,000 barrels daily. It has shut in 140 wells capable of an initial daily production of about 12,000 barrels.

The consolidated balance sheet as of Sept. 30 shows current assets of $47,566,169 and current liabilities of $8,352,209.

The company has outstanding $6,173,000 first mortgage 5 per cent bonds and $8,937,500 20-year 6 per cent gold bonds. Of the 6 per cent bonds $5,000,000 due April 1, 1925, and April 1, 1926, will be retired with proceeds from the sale of the new issue.

Look for the Refinery Products Directory in next week's issue. It will tell you where you can buy any petroleum product. See advertising index for page number in issue of Feb. 18.

Test Near Kosse Revives Interest in Area Widely Tested in 1922

By Paul Wagner
N. P. N. STAFF WRITER

HOUSTON, Feb. 9

UPON the porosity of the limestone horizon topped at 3618 feet in the Harrison et al test two miles west of Kosse probably depends whether a new oil field is at the point of discovery in the central east Texas fault zone.

The Harrison test is located in Falls county, about 2 miles west of the town of Kosse and a similar distance southwest of the Jones well of the old Humphreys Oil Co. which produced 48,000 barrels total yield in 1922. Later operations failed to get production in the area around the Jones well and it was never possible to put it back on production again.

Drilling was going ahead Sunday in the Harrison well after setting six and five-eighths inch casing at 3623 feet. The test was being closely watched because of its better location with regard to faulting than were earlier operations in this district and because of the oil originally found in the Humphreys-Jones well.

A slight show of oil and gas above the hard lime in the Harrison et al test had been regarded as a favorable condition even though it was inconclusive and the outcome of the operation remained in doubt.

Lime Too Hard, Some Contend

Proponents of a theory that the Edwards limestone enters a hard phase north of the Brazos River have discounted important possibilities from this formation in southwestern Limestone and eastern Falls counties. They point to the Jones well as confirming their concepts and contend similar "pockets" are to be expected rather than important oil deposits in the area. The Edwards is recognized to be sufficiently porous south of the Brazos River to contain important deposits and the Luling field in Caldwell county is an example of production in Texas from this geological formation. The Edwards generally produces in the top 100 feet of the formation. As it has been drilled into a maximum of 22 feet in the Harrison et al test, there remains a section of possibly 75 feet more to be penetrated before getting discouragingly deep.

Again, the question is purely one of porosity in the Kosse area, as structural conditions have been measured with fair accuracy on the strength of earlier well records and geological information that would be considered conclusive in the Woodbine sand belt of the fault zone.

It had always been considered significant that the Jones well produced 48,000 barrels, total yield, from the Edwards limestone pay at 3760 feet before it quit producing.

Although never possible to produce additional oil from the Jones well, nor to indicate the presence of a pool through tests drilled in the vicinity of Kosse, the thought persisted in many quarters that a field would be eventually developed. Another school of operators insisted upon looking at the Jones well as a "freak."

In Fault Zone

The zone of faulting that is subsidiary to the major Balcones fractures passes in a northeast-southwest direction through this part of Limestone county.

To the northward, at Mexia, Wortham and Powell, among other fields, this faulting is responsible for the accumulation of petroleum in the Woodbine sand on the upthrow side of the fault.

Southwesterly from Kosse, where the Woodbine formation is not known to be present, a similar influence of faulting is responsible for the "shoestring" pool in Caldwell county that is known as the Luling development.

The Edwards limestone which produces at Luling, is found productive at about 2200 feet in Caldwell county as compared with a level below 3600 feet in the Kosse district. This results from differences in the surface elevation and other physical characteristics. The Kosse district is about 150 miles northeast of Luling development.

After the Jones well showing, at Kosse, test drilling was pursued as far south as Bremond, in Falls county, in 1923 and 1924. These test operations, however, failed of production.

Drilling virtually reached a standstill in this part of the fault zone until Harrison and others started up on the Preston land in 1924. They proceeded slowly and little attention was given the test until the latter part of the year. That was natural because of the fact that no possibilities of production were conceded above the 3000 foot level.

A small showing of gas was reported in a few feet of sand found at about 3200 feet. This sand is generally considered to be the Woodbine, which is known to pinch out altogether in this district. It was found under similar conditions at about the same depth in the old Humphreys-Jones well.

From the time of this showing the Preston test got more attention because of its having reached a level within a few hundred feet of whatever oil possibilities to expect.

Operators began checking back on the Austin chalk marker formation as shown by well logs, and found the first indications of it in broken formation at 2790 feet. The top of the hard chalk, which is the stage of the formation most carefully checked upon, was at 3030 feet and the bottom it at 3170 feet.

Companies Take Leases

A number of companies who had been represented in the territory in only a small way, if at all, began taking on acreage. Prices ranged from $5 to $15 an acre in the area along the Little Brazos river, south and southwest of the Harrison et al test.

Among others represented were the Simms Oil Co., the Kirby Petroleum Co. The Texas Co., the E. L. Smith Oil Co., Tidal Oil Co., Sun Oil Co., Texas Pacific Coal & Oil Co., Empire Gas & Fuel Co., the J. K. Hughes Developing Co., and the Foster-Reiter Oil Corp., the last mentioned of which was the heaviest buyer of leaseholds.

Foster & Reiter, who went out for themselves after achieving a notable geological record in connection with the Humphrey Oil Co.'s development at Mexia and elsewhere, had made the location for the Harrison et al test and they own an interest in the Preston well in addition to the prospective property included in their own block of leaseholds.

While the extension of leasing interest was developing in the Kosse district the drill was going ahead in the Preston test. The drill passed out of the Buda limestone at 3543 feet and went ahead in shale until a depth of 3610 feet was reached.

A small showing of oil and a limited quantity of gas was reported at 3610-3612 feet, after which the drill passed through six feet more of shale before topping the hard lime. The latterly mentioned formation was drilled into 22 feet before the bit was stopped and 6⅝ inch casing was set at 3623 feet.

Quick-set cement was used for the casing job and plans made to drill in the test Sunday, February 8. In the meantime, Black, Sivals & Bryson were given an order for a 1000 barrel flow tank which was erected at the well preparatory for testing.

Credit Omitted

On Page 63 of this issue is a graph showing the relative growths of power from oil, coal and hydro resources. Unfortunately, credit line on this was omitted. The graph was taken from Coal Age, Jan. 15, 1925, and was the work of F. G. Tryon, W. F. McKenney and E. E. Finn. of the U. S. Geological Survey

National Petroleum News

Compilation Of Mid-Continent Refinery Operations

All Rights Reserved to National Petroleum Publishing Co.

Mid-Continent Gasoline Shipments Fall; Stocks Up 4,000,000

By J.C.Chatfield

N.P.N. STAFF WRITER

(*By Fast Wire Service*)

TULSA, Feb. 10

SHIPMENTS of gasoline from Mid-Continent refineries fell sharply during the first week in February, according to reports gathered from 120 refineries by National Petroleum News. As a result, gasoline stocks at all plants increased 4,000,000 gallons to 71,304,135 gallons. Stocks of kerosene were increased 1,000,000 gallons when shipments fell in all fields except north and central Texas and north Louisiana-Arkansas field. Fuel and gas oil stocks were reduced appreciably in all fields except Texas, the net reduction being nearly 3,000,000 gallons.

During the week ended Feb. 6 one refinery in Kansas which had been shut down for some time, resumed operations. In Oklahoma one plant with a capacity of 2500 barrels was added to the list of those reporting. The 120 plants now reporting have a rated still capacity of 439,300 barrels.

Crude runs were reduced in every district in the field during the first week in February. In Kansas 21 plants reduced their runs 1000 barrels to an average of 62,424 barrels or 66 per cent of capacity. In Oklahoma the 46 reporting plants reduced runs 6000 barrels per day or 5.5 per cent to 65 per cent of capacity. North and central Texas plants cut runs nearly 6000 barrels to 77,749 barrels per day or 57 per cent of capacity. Runs in the entire group were reduced 17,000 barrels per day to 274,417 barrels or 62.5 per cent of capacity.

Refiners in both Kansas and north Texas were able to keep their gasoline shipments above production during the week. Kansas stocks were reduced 300,000 gallons to 12,539,709 gallons. In Texas the stock reduction was 260,000 gallons to 13,027,064 gallons. Shipments fell off nearly 3,000,000 gallons in Oklahoma to 7,040,050 gallons while production was 10,429,157 gallons causing an increase in stocks of 3,300,000 gallons to a total of 40,898,769 gallons.

In Oklahoma many refiners have expressed intention of building up stocks of gasoline during February, if possible, to meet summer demands. Several hope to store from 20 to 25 per cent of their production during the month. Texas refiners are now shipping heavily to export and have sold a large part of their production in advance.

Kerosene shipments from Kansas refineries have been heavy for several weeks and there has been a steady drain on stocks until this week. The present report shows an increase in stocks of 1,200,000 gallons to 4,087,212 gallons. In Oklahoma the steady stock reduction continued and shipments were 200,000 gallons in advance of production. Shipments and production almost balanced in north and central Texas, the increase being only 27,000 gallons.

Oklahoma refiners shipped 14,114,390 gallons of fuel oil during the week and they produced only 10,816,316 gallons, thus reducing stocks 3,300,000 gallons to 50,547,846 gallons. In Kansas stocks were cut 600,000 gallons and in Louisiana-Arkansas 33,000 gallons, but in Texas stocks increased 1,300,000 gallons.

FORT WORTH.—The Magnolia Petroleum Co. is building a line from its South Wichita county line to all important pools in Archer county. There will be about 35 miles of main line and a pump station and tank farm near the Harmel pool, southwest Archer county.

Mid-Continent Refinery Figures Week Ended February 6

(By Special Telegraph Service)

	Kansas	% Change Previous Week	Oklahoma	% Change Previous Week	No.&Cent. Texas	% Change Previous Week	No. La.-Ark.	% Change Previous Week	Total	% Change Previous Week	Totals Week Ended Jan. 9
No. of Plants	21		46		39		14		120		117
Da. Still Cap. (bbl.)	95,700		157,900		134,800		50,900		439,300		435,000
Da. Av. Crude Run	50,549		89,102		69,337		28,932		237,920		231,839
Da. Av. Other Oils	11,875		12,757		8,457		3,408		36,497		38,474
Da. Av. Total to Stills	62,424	— 1.5	101,869	— 5.5	77,794	— 6.7	32,340	—12.4	274,417	— 5.9	270,313
GASOLINE—Gallons											
Stocks Jan. 30	12,811,642		37,509,662		13,289,600		3,457,952		67,068,856		59,006,827
Prod. 1-30 to 2-6	6,716,393	+ 3.1	10,429,157	— 3.3	7,806,970	+ 9.7	1,884,037	— 9.3	26,836,557	+ 1.3	25,231,173
Ship. 1-30 to 2-6	6,988,323	+10.7	7,040,050	—29.1	8,069,506	+18.9	503,396	—82.4	22,601,278	—14.2	22,725,856
Stocks Feb. 6	12,539,709	— 2.1	40,898,769	+ 9.0	13,027,064	— 2.0	4,838,593	+39.8	71,304,135	+ 4.9	61,512,144
Ratio Sales to Prod.	104.0%		67.7%		103.4%		26.7%		84.2%		90.1%
KEROSENE—Gallons											
Stocks Jan. 30	2,854,032		9,444,609		5,468,303		728,732		18,495,676		20,486,072
Prod. 1-30 to 2-6	1,538,073	+ 6.1	2,179,757	— 6.4	1,974,198	+ 9.9	516,711	+10.0	6,208,739	+ 2.7	6,177,201
Ship. 1-30 to 2-6	304,893	—81.0	2,375,902	— 9.9	1,947,647	+ 7.5	436,923	+20.3	5,065,365	—21.5	7,517,662
Stocks Feb. 6	4,087,212	+43.2	9,248,464	— 2.1	5,494,854	+ 0.5	808,520	+10.9	19,639,050	+ 6.2	19,145,611
Ratio Sales to Prod.	20.0%		109.0%		98.6%		85.4%		18.6%		121.7%
GAS AND FUEL OILS—Gallons											
Stocks Jan. 30	10,769,004		53,845,920		39,813,266		14,150,440		118,578,630		114,000,203
Prod. 1-30 to 2-6	6,342,290	— 7.5	10,816,316	—11.8	10,632,223	— 1.8	6,365,506	— 9.4	34,156,335	— 7.7	36,944,758
Ship. 1-30 to 2-6	6,974,534	+11.1	14,114,390	+69.9	9,473,044	— 7.3	6,398,286	— 8.1	36,960,254	+16.4	39,881,914
Stocks Feb. 6	10,136,760	— 5.9	50,547,846	— 6.1	40,972,445	+ 2.9	14,117,660	— 0.2	115,774,711	— 2.4	111,063,047
Ratio Sales to Prod.	110.0%		130.5%		89.2%		100.5%		108.2%		107.9%

Treating Pressure Distillate with Clay Works at Barnsdall Plant

By Paul Truesdell

N. P.N. STAFF WRITER

BARNSDALL, OKLA., Feb. 5

SULFURIC acid, used for treating pressure distillate and benzine, has long been suspected of removing not only the trouble-making compounds which it is supposed to remove, but some of the good properties of the gasoline as well.

The acid has never really been convicted of this, maybe, but it has certainly never been acquitted, either. Acid has many troublesome characteristics, its corrosive action on iron and steel and the expense and trouble of handling the sludge being two of the chief ones.

Various other treating agents have been tried from time to time more or less extensively and much experimenting has been done to improve methods of treating and chemicals to be used, but so far sulfuric acid has remained the generally accepted agent.

There have been papers read and there has been considerable discussion dealing with the treating of pressure distillate in the vapor phase with fuller's earth, a process developed by T. T. Gray of New York, a member of the well-known Gray family which has produced many refining experts.

Considerable experimental work has been carried on at several plants with the Gray process, trying it out, but so far as known, as an actual, working process on a commercial scale, it has been installed at only one refinery, that of the Barnsdall Refining Co., here.

What it Does and What it Does Not

This story is to pass along the opinion of F. E. Holsten, vice president in charge of manufacturing of the Barnsdall Refining Co., as to the operation and success of the process at his plant. According to Mr. Holsten, the process does:

1—Produce a water white gasoline (30 color) at a cheaper cost than acid-treating.

2—Remove the gum-forming compounds from the gasoline insofar as actual driving tests of a car on the road will show.

It does not:

1—Eliminate the necessity for re-running the pressure distillate.

2—Sweeten the gasoline, that is, do away with the necessity for doctor treating or hypochlorite treating.

The order usually followed in refineries of treating the pressure distillate first and then re-running, is reversed in this plant. The stuff is re-run first and the vapors go from the re-run still into a bubble tower and thence into the Gray vapor-treating tower. The plant now in operation is of small capacity.

Here is how the process is being worked:

Because of the small capacity of the treating tower the pressure distillate is being re-run on the batch system. From the still the vapors go into the bottom of a 21-plate bubble tower, up through the tower and out at the top into the bottom of the Gray tower.

This is really a tower within a tower or a tank within a tank, as the drawing, Fig. 3 shows. The tower is round and is mounted on structural steel supports. It was built by the Bethlehem Steel Corp.

The inner tower, which has a conical bottom fitted with a manhead for emptying it, contains the fuller's earth. Atapulgas clay from Georgia is used in this plant, which is the same that is used also in the lubricating oil filters. The clay is of 60 to 90 mesh fineness.

The bottom plates of the fuller's earth container are perforated with a number of small holes but these are screened or protected in some manner to keep the fuller's earth from falling through. The sides of the clay container run straight down below the conical bottom to the bottom of the outer tower. The top of the fuller's earth tower is open and its top is considerably below the roof of the outer tower. There is a considerable space all around between the walls of the inner and outer towers.

The fuller's earth tank as operating now is loaded with six tons of fuller's earth. It is designed to hold eight tons but with six tons it takes only two pounds pressure on the still to drive the vapors through the clay and as the results obtained with the smaller amount are satisfactory, Mr. Holsten has not felt like increasing the back pressure on the still by using eight.

The outer tower is heavily insulated, for one of the important factors in the process is using the heat of the vapors to maintain a high temperature in the fuller's earth. Heat in the clay, the

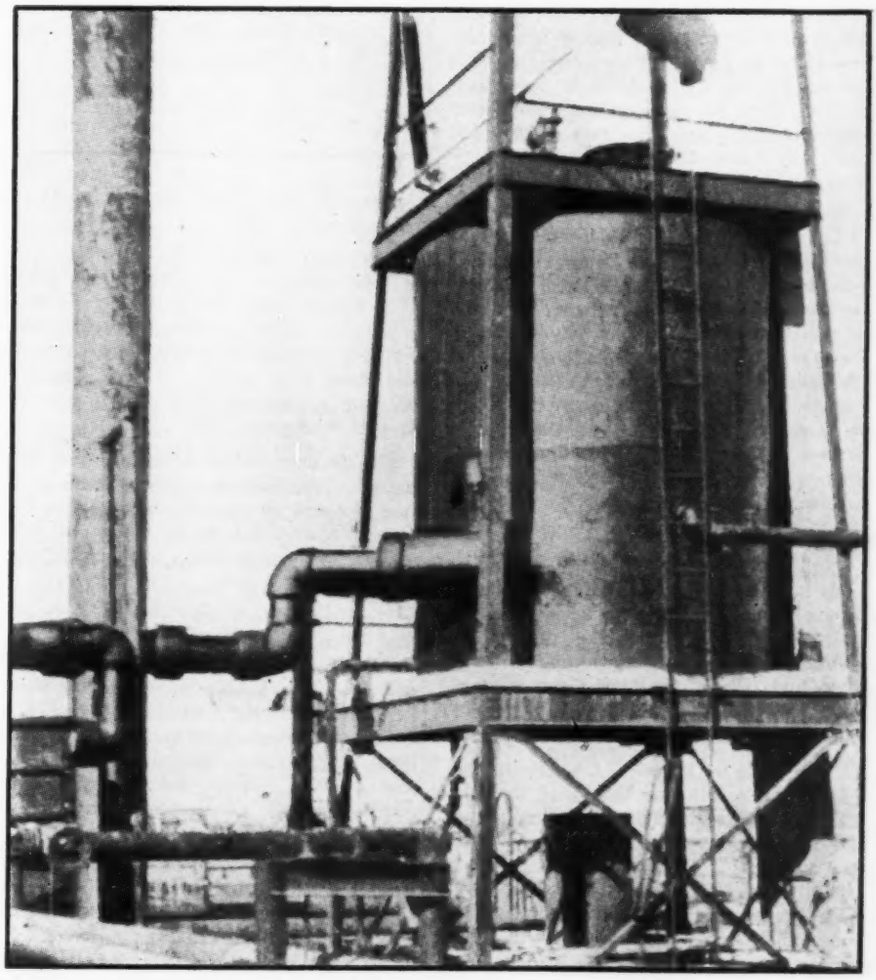

Fig. 1.—The Gray vapor-treating tower

inventor says, plays an important part in the reaction which takes place.

The vapors are led into the outer tower through an eight-inch vapor line which enters at a tangent. This is to promote a swirling, spiral motion of the vapors through the space surrounding the clay container. The manner in which the vapor line is set into the tower is shown in the photograph, Fig. 3.

Vapors Heat Clay

The vapors circulate around the outside of the inner tank, giving off their heat to the clay within, until the space is entirely filled. The only outlet for them is downward through the clay. They pass down and out through the vapor outlet line which leads out of the fuller's earth tower on the opposite side from which the vapor inlet enters the outer tower.

In the passage of the vapors through the clay, the diolefins, which Dr. Gray blames for the forming of compounds that throw gasoline off color and form gum which plugs up the carburetor and fuel line of an automobile, are separated from the other hydrocarbons and concentrated. They pass down through the clay and through the holes in the conical bottom plates of the inner tower and into the space under the bottom of the clay container. A reflux line is provided in the bottom of this space to reflux the diolefins, or polymers, into the still for redistillation. Inasmuch as these are accused of being the troublesome members of the family it may turn out that it is not the best thing to run them back into the still but so far as Mr. Holsten is concerned, he has been so busy getting the plant into successful operation that he has not had time to consider this minor point very much.

Some of the heavier ends of the vapors, of course, are condensed in the outer space between the towers, due to decreasing the velocity of their flow and enlarging the surface offered for condensation. There is also a reflux line from the bottom of this space to carry such condensates back into the still. The objectionable compounds that the hot fuller's earth, acting as a catalyst, takes out of the vapors, form a red, yellow or brown liquid, much heavier than gasoline and something like fuel oil in viscosity.

What Inventor Claims

Concerning this stuff, Dr. Gray says: "It is claimed that this orange-red liquid results from the polymerization of the diolefins only; and that it is due to the production within a few seconds of the compounds which ordinarily form in gasoline only through the process of considerable time and which tend to form gum or color in it."

In other words, the theory is that the action of the clay at once forms the gummy and discoloring compounds and takes them out instead of leaving them to develop after the gasoline is in the storage tank or is going through the fuel line of an automobile. Polymerization means the pulling together of these compounds into a separate liquid of different molecular weight than gasoline.

SCIENCE IS STEPPING FAST IN THE REFINING BUSINESS

NOT high hat science but practical science that helps to do things in a better way.

Inventions are coming to the front every day that are cutting the corners of operating cost.

Not only that, but active refinery managers and superintendents are devising every day little improvements, sometimes big ones, that cut down labor cost and power cost and various expenses that go into the operation of a refinery.

Most of these improvements don't call for much capital outlay.

Some of them are covered by patents and some are open to any refinery manager.

All are interesting.

Paul Truesdell is just back from a two weeks' trip to the refining centers of the southwest, during which many of the refiners told him about the things they are doing to increase efficiency and cut costs.

He is going to pass these along in a series of stories, one each week. This is the first. All will be illustrated.

Here is the inventor's indictment of sulfuric acid:

"The new process does for these compounds which form polymers (diolefins) what sulfuric acid fails to do; does it without loss or injury to the other constituents which are essential to first grade gasoline and does it at a loss of less than one per cent as against three to five per cent in acid treatment."

The process has not been in use long enough at the Barnsdall plant for Mr. Holsten to check up what the comparative loss by vapor treating is as compared with sulfuric acid treatment, from actual experience.

The temperature which prevails in the clay during the treating Mr. Holsten does not know. However, the vapors from the still enter the bubble tower at about 350 F. It is probable that they do not lose very much heat in the tower so it is likely the temperatures of the clay is around 300 F. or so, unless further heat results from the chemical reaction of polymerizing the diolefins.

When the process was first put into operation last September, the bubble tower, which was on hand at the plant and is not a part of the regular Gray equipment, was hooked into the line for its fractionating value. At that time it was not insulated. At the start, the life of the fuller's earth was about 275 barrels of gasoline to the ton.

When the weather began to get cold, the bare bubble tower did not function so well and the yield of gasoline to the ton of earth began to fall off. Mr. Holsten decided that insulating the tower was the answer and a heavy coating of insulating material was put on. The effect was immediate. The yield of gasoline per ton went up to around 600 barrels and that is what it is producing now. This means that one charge of clay will treat 3600 barrels of gasoline before it is exhausted. At the rate that the vapors are being fed into the tower by the batch re-run still, that means that one charging of the tower lasts about a week and a half.

Mr. Holsten is planning to put in another treating tower shortly because the capacity of the one that is operating is too small to handle more than a fraction of the pressure distillate turned out by the cracking still battery. The equipment now in use was comparatively inexpensive and its operating cost is very low, Mr. Holsten says, because the clay is the same as that bought for the use of the lubricating oil department.

When the clay in the tower is exhausted it is regenerated by burning in a rotary kiln the same as spent clay from the lubricating oil filters. After burning, the clay from the vapor treater is thrown

into the same bin with the other earth, there being no difference. Mr. Holsten believes that the same clay can be used easily four or five times in the vapor treating method, after being regenerated each time, of course.

From the standpoint of the skimming plant refiner, the process has the disadvantage that he has no fuller's earth on hand for any other purpose and in order to regenerate his clay would have to put in a rotary burner at considerable expense. How the advantages of the process and the savings it would make would stack up against the added investment necessary to operate it, has not been tried out in a skimming plant so far as is known.

Different Stock, Different Operation

Mr. Holsten points out also, that it should be remembered the results he is getting are on pressure distillate made by the Fleming cracking process. It is likely, he says, that differences would be found in the operation of the treating process on pressure distillates produced by different processes and perhaps from different crudes.

Fig. 3.—Showing how the vapor line enters the tower at a tangent to give a swirling motion to the vapors around the fuller's earth container

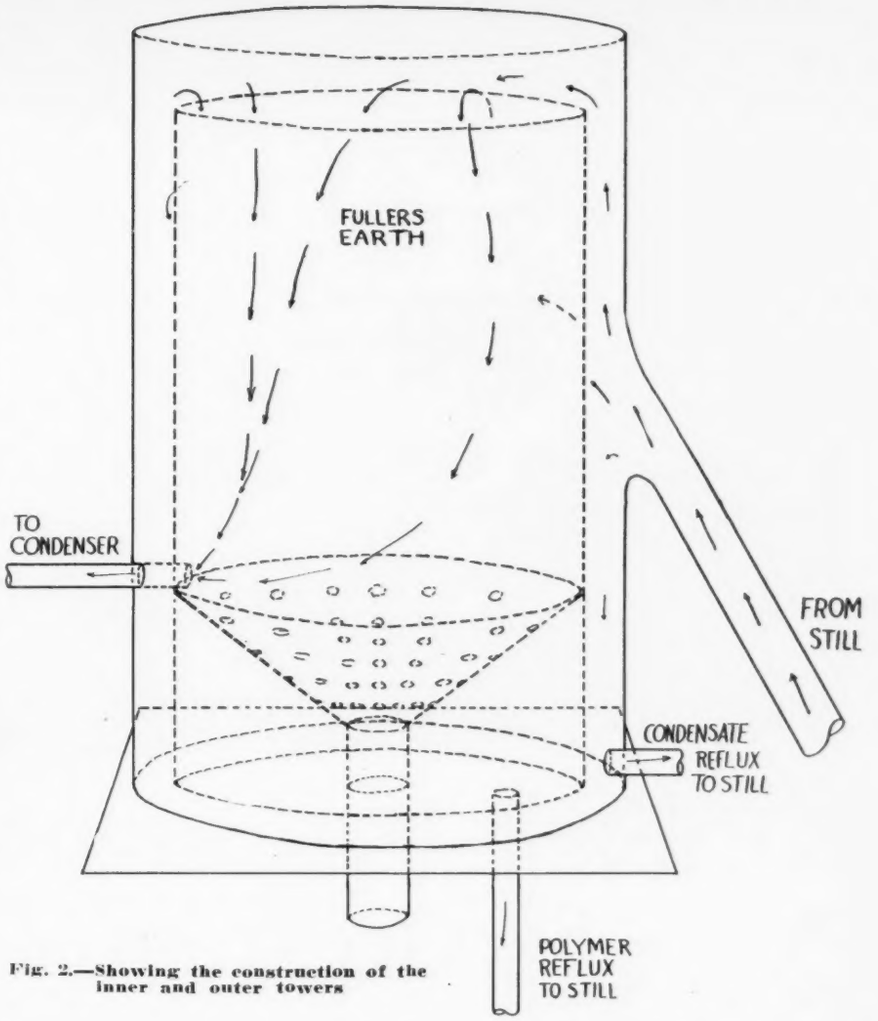

Fig. 2.—Showing the construction of the inner and outer towers

He believes that the vapor treating method would have to be fitted to the operating conditions of the individual refinery and the stock it operated on. There is nothing, however, to indicate that this process would not work well on any pressure distillate from any crude, provided it was operated according to the requirements of the stock.

Dr. Gray sums up the claims he makes for his process as follows:

"Untreated gasoline which goes off color and deposits insoluble residues is usually ascribed to diolefins.

"Acid treatment removes these, it is true, but it also removes many other compounds (those that lend pep to the fuel) which not only cause no trouble but are among the most valuable constituents of the gasoline, being fractions of the lowest boiling point.

"By acid treatment there is caused a polymerization of some of the light hydrocarbons, causing reformation of products of high boiling point and these polymers have to be recracked. (For example, a crude gasoline having an end point of 437 F. produced by cracking, when treated with acid no longer has an end point of 437 F. but probably four or five per cent will have a higher end point.)

"For example, the colored polymer fraction above referred to. More than one half of one per cent of this fraction condenses but if redistilled all that passes off below 437 F. is water white, while none of the intensely colored compounds distill at less than 100 degrees above this temperature.

"Not only in experimental work but in commercial practice thus far, the colored fraction has been returned to the still in perfect confidence that none of the colored bodies will redistill with the gasoline."

Concerning the cost of operating the process, Mr. Gray says:

"The handling and retreating values of the fuller's earth are also points in its favor for not only can it be blown into the towers, thus lowering handling costs to a minimum, but retreated at very small cost as compared with acid sludge."

Mr. Holsten expects very soon to have his plant equipped for blowing the clay into the towers by air pressure.

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444 Oil Companies Chartered

NEW YORK, Feb. 6.—During 1924, 444 oil companies were chartered, according to a compilation by the Journal of Commerce. Authorized capital of these companies totaled $689,071,000. In 1923 597 companies with authorized capital of $962,403,840 were incorporated. In 1922 the figures were: 784 and $1,157,972,000. The 1922 figures reflect the industry's prosperity most of that year.

Knox Process obtains *complete* Service from *one* contract

THE Knox Process Company found it advantageous to place one contract for all the tank and holder construction at its refinery at Texas City, Texas.

Tank and gas holder fabrication and erection are developed to a higher point in our organization than is possible when shop and field men have to handle various types of plate work not similar to tank construction. We gave the Knox Process Company the nearest approach possible to the benefits of standardized production methods. They obtained the benefits of uniform work and better work due to our specialization in tanks and holders.

One contract covering ALL of the tanks simplified the work of purchasing agent when the order was placed.

Later on, during fabrication and erection, it very much simplified the work of the engineering department. Instead of three contractors, the Knox Process Company had only one to deal with.

The work included a Horton Holder of 50,000 cubic feet capacity; six umbrella-roof, flat-bottom Horton rundown tanks, 35 x 12 feet; and a 25,000-gallon Horton elevated tank eight stories high.

Your Next Job

On your next refinery construction program we suggest that you take advantage of our organization.

Your tanks and plate metal equipment will be fabricated in the nearest of our three plants, which will give you the benefit of the lowest freight rate.

It will be erected by one of more than seventy-five erection crews.

It will be turned out in shops which specialize in just exactly the type of construction which principally composed refinery plate work tanks, holders, agitators and similar structures.

When your structures are handled by Horton they will be built by an organization which is thoroughly competent to give you the most modern structural practice, and prices as low as can be consistent with the best workmanship.

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Tell Public Why, When Prices are Raised

By Warren C. Platt
EDITOR, NATIONAL PETROLEUM NEWS

DO the oil companies realize that never, when they raise the price of gasoline to the public, do they at the same time give the public any explanation as to the reasons for that raise?

Do the leaders of the oil industry appreciate that they tell the public simply, "It's 18 cents today; yes, 2 cents above yesterday," and then wait until they are dragged in before some investigating committee and put under oath before they proffer to the public any reasons for that advance?

Always they are in the position, before the public, of wishing to keep the reasons for the advance secret, hence the public assumes there are no good reasons, only bad ones—to-wit—to increase already swollen profits.

There may be some exceptions to this general statement but right now the writer can't recall any. Ofttimes the newspapers will call up the oil companies and get some information, but that is AFTER the raise and the reasons, if properly given in the interview, are most inadequate when they appear, if at all. Ofttimes in the financial columns of the metropolitan papers will appear fairly good analyses of the situation in support of the price advance, or decline, but few of the 18 million motor car owners read the financial pages of these city papers.

It's a job the oil industry has been overlooking, but a job that common sense would dictate, should be done.

Obviously the duty for the explanation falls on the company making the general advance or decline in the market, whether crude or tank wagon prices. The smaller companies can say something too and should, but the job primarily is that of the big companies.

When a big company changes the price in crude or the tank wagon markets it presumably has good reasons. It should make those reasons public at the same time it announces the market change. The statement should be concise but comprehensive. No glittering generality will serve. The rise or fall in crude stocks should be given in barrels; the arrival or departure of a new field should be stated definitely; too much or too little gasoline on hand should be given; heavy export demand, competition, etc., should be told of. The source of all figures used should be given if possible. Each big company executive making the change should make up the statement just as if he had a superior officer to report to on it, and the public is literally the superior officer.

Effort should be made to have this statement in the hands of all company executives and agents when the change is made. In fact all employes should be given it. With today's policy the employes can't answer the public's intelligent question of "why the raise?" which is another reason why the public is suspicious. On tank wagon changes the reasons should be posted at all service stations and at all agencies simultaneously, when at all possible, with the new price.

The introduction of this policy will be such a novelty that the public probably will give it considerable discussion at first. City councilmen, state legislators and probably congressmen, may rise and discuss the reasons given, may challenge them and undertake to substitute their own ideas. But if the oil companies are careful of their facts and they are conclusive, these public inquirers will get tired of finding that the oil companies' statements are correct and quit asking about them.

When the novelty is worn off, the public will get tired of reading the explanations and the newspapers may even quit printing them. But all the same, the fact that the reasons have been sent into the newspaper offices, that they have been given to all employes and posted at all stations and agencies, will be evidence to the public of the oil companies' good faith in making the changes.

Of the advances of crude and tank wagon prices the past few weeks, no reasons have been given the public. The oil industry knows the reasons but the public doesn't. And there has been some unsatisfactory comment. It's not too late now for the heads of the leading companies to tell their customers and their own employes, why the prices have risen.

Why the Oil Markets Have Advanced

By Warren C. Platt
EDITOR, NATIONAL PETROLEUM NEWS

TO THE PUBLIC:—

1. More crude oil is now being consumed than is being produced and imported into this country.

2. For the first time since the spring of 1920 there is a substantial drawing on the stock of oil which has been collecting as surplus in tanks above ground. In December of 1924 this draft was almost 3,000,000 barrels and in January almost 7,000,000 barrels, this according to figures of the United States Geological Survey. Every indication is this draft will continue for some months, at least.

3. This drawing on stocks of crude oil is due—

(a) To the largest demand for oil in the country's history. All during last year (1924) this country was using petroleum and its products at a rate well in excess of 2,000,000 barrels of crude oil a day. In 1923 this daily consumption was less than that in 1922. It was down to nearly 1,500,000 barrels a day and in 1921 it was still smaller. Every year, for years past, the demand has increased tremendously.

(b) This drawing on stock today is also due to the production of oil dropping off from the wells of this country and Mexico. For the past four and a half years, because of the steady discovery of many big fields each year, the production has been way in excess of demand. The industry had to store this surplus oil in costly steel tanks against the day when these fields would decline. That day is now here.

That draft on stocks may be stopped any time by the discovery of still other fields, but at the present moment no new big field is in sight that will do it. However the oil industry may find it tomorrow. No one will know until it is found. Several new fields were found the past year (1924) but with one exception they were relatively small. That exception, Wortham, in central Texas, jumped from nothing Thanksgiving time to 170,000 barrels a day the

fore part of January, but it has gone off almost as quickly and is now doing about 80,000 barrels a day.

4. There is plenty of oil in storage—more than 350 million barrels of crude oil and more than 150 million barrels of products in storage at refineries—enough to run this country for a long time, plenty long enough for the industry to discover more fields and to increase the production from present fields.

However nearly all of this oil was bought when the market was higher than it has been the past few months. The regular market price was paid for it by the pipe line and refining companies, of which there are some 400 in operation, to the producers of the oil and to the land owners or royalty holders, generally the farmers. The buyers of this oil have had to pay in addition the cost of building steel tanks, the cost of piping the oil to those tanks, the interest on the oil while in storage and the interest on the equipment used for its storage and handling. Most of this has been done with money borrowed from the public through bond issues, certificates, and notes, etc.

The result is that the 400 and more companies who now hold the oil must get more money for it now that it is being used up than they paid for the oil or else they will be bankrupt and the thousands of people who invested in these bonds, notes etc., will lose their money. If all that storage oil were to be sold today, these 400 and more companies would have to get roughly from $1 a barrel to $1.50 a barrel and in some cases even more, for that oil—in order to break even—than they paid for it and they bought on a higher market than that of the past few months.

But that oil won't be taken out of storage and sold to the public in a single day. It will be drawn on gradually, as the public requires it, and this draft will run over many months, in fact years. Hence the companies will have to get still more for that oil as time goes on in order to take care of the interest, depreciation, etc., which keep on each month. That will mean still higher prices, but interpreted in what the public pays for its gasoline, lubricating oil, furnace oil etc., it will only mean a few cents more per gallon.

5. Prices on crude oil and its products have, therefore, advanced primarily because of the free operation of the law of supply and demand—to wit the demand now exceeds the supply. When the supply of anything, corn, wheat, labor, automobiles or anything in this world is less than the demand, the people who want those things bid against each other in order to get it. That is the way the world has always operated and it's probably the way it always will operate.

Sometimes the operation of the law is so drastic, because of the great scarcity of a commodity, that the price goes to great heights until in some way, somewhere, some one discovers or produces a new source of supply, or a substitute is found, then the price drops again.

But the present prices of crude oil, and of its products, have not reached any excessive height, nor are they likely to because oil men are confident there are vast fields of oil in this country not yet discovered. However, how long it will take to find them and how much it will cost is a question. Undoubtedly there will be some found within the year.

Present prices of crude and its products are hardly high enough yet to pay the just cost of producing it, of taking it out of storage and of refining and marketing it. Owing to the past four and a half years of tremendous over production, the prices fell so low—because of the free operation of the law of supply and demand—that companies found it difficult and in many cases impossible to make a profit. It has been a most disastrous period for the oil industry, as a whole.

Tell the Public!

THE reasons given in this article, either in full or in summary form, should be posted at service stations, bulletined to all oil company employees, and presented to the public in every way possible, to give them the real causes back of the recent advances in prices.

If any oil company thinks well enough of this statement to use all or any part of it, it is welcome to do so. However, National Petroleum News would appreciate it if the companies would send in the statements or newspaper clippings where it is used.—Editor.

The greatest surplus on the market was crude oil, hence the price of crude oil fell the farthest and the producers of that oil—thousands of individuals and companies, large and small the country over, literally have not been making a profit except on the few large wells that came in in these new pools. But the bulk of the producers of oil were not interested in these new pools. They own more than 280,000 wells scattered over the 17 oil producing states of the country, wells that now average only five and six barrels a day each and which have to be pumped to get that. They are not gusher wells. Tens of thousands of these same wells produce less than a barrel a day.

It's largely to the owners of these 280,000 wells that the country must look for an increase in its supply of crude oil. Obviously, if these producers have been operating at cost or at a loss the past three or four year, they have not the funds at hand to go out and drill more wells at once. They can only be got to drill wells by being offered enough of a price to pay a profit on such wells as they may drill—and bear in mind that 25 per cent to 30 per cent of all holes drilled are dry and a total loss,—and be paid a price for the oil which they are now producing which will pay for the cost of producing it and help them to recover some of their losses of the last few years.

There has also been a surplus of gasoline on the market the past several years. This is because, first, there was such a big surplus of crude oil to make it out of and, second, because the refiners got over-optimistic as to the amount of gasoline the country would consume and hence made too much of it. Therefore, even irrespective of the market for crude oil, the price of gasoline at the refineries fell even to way below its cost at times.

The public, therefore, the past few years, has been profiting by the low price for gasoline and other petroleum products, at the loss of many oil men. The advancing price for crude oil and for gasoline and other refinery products the past few weeks promises to permit the oil companies to recover that loss and to get in shape to go out and seek new supplies. And the chances are, if the 70 years of oil industry history is any criterion, that, when those new sources of crude oil are found, there will again be a drop in the price perhaps to equally unprofitable figures. But that will be the oil industry's trouble, not the public's.

These are the basic reasons for the recent advances in price. The information here given is a matter of public record, as statistics are gathered by several competent departments of the government as well as by reliable oil trade journals.

Settles Conflict on Tradenames

CLEVELAND, Feb. 6.—A. J. Callaghan, president of the American Oil Corp., Jackson, Mich. and president of the American Oil Men's Association, was in Cleveland last week on his way home from a trip east, where he had been checking over the affairs of his New York and export office, which was reopened Dec. 1 under the management of A. H. Taylor at 59 Pearl Street.

While east Mr. Callaghan arranged settlement of a conflict on his company's tradename of "Premier" with the Standard Oil Co. of New York. This tradename was registered by the American Oil Corp. in 1920. Recently, the patent office notified them of an interference from the Standard of New York, the latter company claiming that it had been using the name on its products for more than twenty years. After conference with President Pratt of the Standard and his attorneys, it was arranged that Mr. Callaghan would have the right to use "Premier", uncontested, on motor oils and greases, and the Standard would use it on the rest of petroleum products.

Early Resumption of Pipe Line Shipments East Predicted

CLEVELAND, Feb. 9

OPINION is expressed by Forest M. Towl, president of the southern group of pipe lines—the Cumberland, Eureka, Southern and South West Pennsylvania—that crude oil will "at some not far distant day, again be moving east through the pipe lines to the Atlantic coast."

This opinion was expressed in a letter to stockholders of the latter three companies which last year failed to earn their dividends, payments being made out of profits accumulated previous to 1915.

During the latter part of 1924 shipments from the Mid-Continent east practically ceased, Mr. Towl said. He expects that crude from the southern part of the Mid-Continent field will be piped to the Gulf and then tankered to Atlantic seaboard refineries. He indicates that he does not think the latter movement will compare with the movement of California crude through the canal to Gulf and Atlantic coast refiners during 1923 and 1924.

Cumberland's Showing Best

Cumberland's showing last year was the best of the four companies Mr. Towl heads. It netted $14.64 a share or $2.64 a share more than it paid out as dividends. In 1923 it netted $26.24 a share. The large overproduction in California, Mr. Towl explained, caused price declines which slowed down production in Kentucky. A market was found for most of the oil but the Cumberland did not have as much oil to move as during 1923.

The report of the Southern Pipe Line Co. shows the extent of the falling off in shipments. This company has no gathering business. During 1923 it transported 6,189,629 barrels of crude. Last year the business fell to 3,716,908 barrels. Its net was equivalent to $2.80 a share as against $5.47 a share in 1923. Dividends totaled $8 a share.

South West Pennsylvania Pipe Lines ran from wells in Pennsylvania last year 983,005 barrels of crude. Runs in 1923 totaled 1,049,559 barrels. Net for the year averaged $2.60 a share against $7.67 in 1923. Dividends paid last year were $7 a share.

The Eureka Pipe Line Co. fared the worst of the group, netting only 64 cents a share as against $6.49 a share in 1923. The company ran from wells in West Virginia 4,300,640 barrels last year and 4,688,954 barrels in 1923.

Book Values of Stock

Book values of the stock of the four companies on Dec. 31 were Cumberland $144.48; Southern, $111.96; Eureka, $164.71; and South West Penn, $117.36.

Mr. Towl said that none of the companies was considering any stock or large cash dividends. He explains the oil purchase and contingent account thus:

"The oil purchase and sale contingent account is maintained to take care of

(Continued on next page)

Income accounts of Cumberland Pipe Line Co. for last five years follow:

	1924	1923	1922	1921	1920
Profits	$ 439,446	$ 786,420	$ 723,605	$ 301,013	$ 389,029
Dividends	360,000	300,000	180,000	180,000	180,000
Surplus	$ 79,446	$ 486,420	$ 543,605	$ 121,013	$ 209,029

Balance sheets as of Dec. 31 of last five years follow:

ASSETS	1924	1923	1922	1921	1920
Plant	$ 4,626,729	$ 4,638,577	$ 4,362,484	$ 4,245,687	$ 4,086,540
Other Investments	2,885,637	2,227,762	1,880,262	909,682	488,688
Accounts Receivable	165,721	153,478	138,017	105,270	120,779
Cash	63,610	289,599	167,330	348,197	364,776
Total	$ 7,741,697	$ 7,309,416	$ 6,548,093	$ 5,608,836	$ 5,060,781
LIABILITIES					
Capital Stock	$ 3,000,000	$ 3,000,000	$ 3,000,000	$ 1,500,000	$ 1,500,000
Depreciation	2,346,613	2,162,228	1,926,336	1,565,133	1,226,330
Accounts Payable	145,716	23,869	12,029	85,045	63,195
Oil Purchase, Sales Contingent	914,963	868,361	841,190	733,725	667,336
Surplus	1,334,405	1,254,958	768,538	1,724,933	1,603,920
Total	$ 7,741,697	$ 7,309,416	$ 6,548,093	$ 5,608,836	$ 5,060,781

Income accounts of Eureka Pipe Line Co. for last five years follow:

	1924	1923	1922	1921	1920
Profits	$ 32,061	$ 324,507	$ 632,603	$ 426,339	$ 543,218
Dividends	350,000	555,001	400,001	500,001	650,001
Deficit	$ 317,939	$ 225,493	$* 232,602	$ 73,662	$ 106,783

*Surplus

Balance Sheets as of Dec. 31 of last five years follow:

ASSETS	1924	1923	1922	1921	1920
Plant	$10,808,291	$10,793,194	$10,813,420	$10,792,496	$10,681,853
Other Investments	1,945,035	1,945,035	1,895,160	1,167,610	942,662
Accounts Receivable	180,400	238,719	251,302	260,241	246,424
Oil Purchase, Sales Contingent	208,616	202,416	190,243	99,855	100,505
Cash	316,998	429,554	346,612	591,205	592,882
Total	$13,459,340	$13,608,918	$13,496,737	$12,911,407	$12,564,326
LIABILITIES					
Capital Stock	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000	$ 5,000,000
Depreciation	4,925,395	4,672,151	4,322,616	3,933,511	3,491,263
Accounts Payable	298,406	383,289	395,150	431,527	453,031
Surplus	3,235,539	3,553,478	3,778,971	3,546,369	3,620,032
Total	$13,459,340	$13,608,918	$13,496,737	$12,911,407	$12,564,326

Income accounts of Southern Pipe Line Co. for last five years follow:

	1924	1923	1922	1921	1920
Profits	$ 280,092	$ 547,707	$ 982,239	$ 1,090,996	$ 1,315,181
Dividends	800,000	999,999	799,999	1,000,001	1,569,999
Deficit	$ 519,908	$ 452,292	$* 182,240	$* 90,995	$ 384,818

*Surplus

Balance Sheets as of Dec. 31 of last five years follow:

ASSETS	1924	1923	1922	1921	1920
Plant	$ 5,971,232	$ 5,970,849	$ 5,966,988	$ 5,974,155	$ 5,948,088
Other Investments	7,572,531	7,762,571	7,771,217	7,441,671	7,274,122
Accounts Receivable	133,871	206,659	297,069	222,342	311,289
Cash	26,121	110,723	340,079	577,753	361,984
Total	$13,703,755	$14,050,802	$14,375,353	$14,215,921	$13,895,483
LIABILITIES					
Capital Stock	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000
Depreciation	2,505,898	2,333,088	2,162,946	1,990,660	1,818,571
Accounts Payable	951	901	43,302	238,386	181,041
Surplus	1,196,906	1,716,803	2,169,105	1,986,866	1,895,871
Total	$13,703,755	$94,050,802	$14,375,353	$14,215,921	$13,895,483

Income accounts of Southwest Pennsylvania Pipe Lines for last five years follow:

	1924	1923	1922	1921	1920
Profit	$ 91,200	$ 268,464	$ 315,871	$ 161,970	$ 356,149
Dividends	245,000	279,999	245,000	210,000	279,999
Deficit	$ 153,800	$ 11,535	$* 70,871	$ 48,030	$* 76,150

*Surplus

Balance Sheets as of Dec. 31 of the last five years follow:

ASSETS	1924	1923	1922	1921	1920
Plant	$ 4,222,912	$ 4,163,670	$ 4,140,779	$ 4,142,682	$ 4,034,230
Other Investments	1,338,391	1,338,391	1,398,391	1,236,891	1,236,891
Accounts Receivable	168,941	234,138	298,211	296,447	232,779
Oil Purchase Sales Contingent	16,696	17,399	9,986	.....	.....
Cash	41,773	140,507	94,214	28,634	84,278
Total	$ 5,788,713	$ 5,894,105	$ 5,881,581	$ 5,704,654	$ 5,588,178
LIABILITIES					
Capital Stock	$ 3,500,000	$ 3,500,000	$ 3,500,000	$ 3,500,000	$ 3,500,000
Depreciation	1,599,195	1,494,818	1,385,603	1,285,756	1,177,042
Accounts Payable	81,940	137,909	223,064	214,588	134,203
Oil Purchase Sales Contingent	.....	.....	.....	2,267	26,859
Surplus	607,578	761,378	772,914	702,043	750,074
Total	$ 5,788,713	$ 5,894,105	$ 5,881,581	$ 5,704,654	$ 5,588,178

(Continued from preceding page)
variations in purchases and sales so that, at all times, we may have sufficient oil to meet our liabilities to our patrons. This account appears among the liabilities and part of it may eventually be a profit, but against this will be a large federal tax on such profit during the years when it is adjudged to have become a profit. Much of this profit will take high excess profits rates."

Spring Meeting of N.P.M.A. Booked for Chicago

Staff Special

CHICAGO, Feb. 6.—National Petroleum Marketers' Association will hold its next national meeting in Chicago, on April 7, 8 and 9 at the Congress Hotel. This meeting is to be called an "Industrial Conference" according to the official announcement that went out from the association's headquarters here on Feb. 5.

L. V. Nicholas, president of the organization, states that arrangements are being made for thoughtful papers by leaders in industry, to make the gathering fruitful in benefit to the marketing branch of the oil industry. One of the main features of this spring meeting will be the arrangement of conferences between executives of state associations, with mutual problems.

Only a limited number of exhibits will be possible at the coming meeting. The Gold Room in the Congress Hotel, wherein many oil men have assembled in years past, is the only space set aside for equipment display. As is well known to most equipment men who sell the oil trade, the Gold Room will not hold many booths of the customary size.

Crew Levick Buys Indian Properties in New York

PHILADELPHIA, Feb. 10.—Purchase of properties, including warehouses, bulk and service stations, trucks and other gasoline and kerosene distributing equipment, of the Indian Refining Co. in Syracuse, Schenectady, Long Island City, Brooklyn and New York City, was completed this week by the Crew Levick Co. Crew Levick is adding the newly-acquired properties to those it purchased recently from the Indian in Rome, Rochester and Niagara Falls, N. Y. This will enable the former company to handle light oils in New York state for the first time, according to Ben Baum, of the Philadelphia offices of Crew Levick.

The deal does not include, however, the motor and lubricating oil branches of the Indian comapny and it will continue to market its Havoline oils in the above cities as before.

As a result of this purchase, the Crew Levick has established five districts to take care of its operations. Division A includes the branches in Pennsylvania, New Jersey, Delaware and Maryland and W. J. O'Malley, who was formerly superintendent of operations of the tank station department, has been appointed manager.

Division B includes the Philadelphia territory, and E. E. Grignarde, who was manager of the New England division, has been appointed manager of this division Mr. Gringnarde will also manage Division E, which includes New England. B. O. Pinkham was appointed manager of sales and Parker H. Kennedy manager of operations of the New England territory.

Division C includes Schenectady, Rome, Syracuse, Rochester and Niagara Falls, of which H. J. Kunz has been appointed manager. Mr. Kunz will move his headquarters from Philadelphia to Syracuse.

Division D consists of New York City, Long Island City and Brooklyn. J. W. S. Bessonette, who was manager of the lubricating oil station in New York, was appointed manager of this division, and Edward Brennan formerly local manager at Brooklyn, was made superintendent of operations in this division.

Program for Iowa Jobbers Meeting Feb. 12

DUBUQUE, IA., Feb. 9.—The fourth annual meeting of the Iowa Independent Oil Men's Association, which is scheduled for Feb. 12 and 13, to be held at Fort Des Moines Hotel, Des Moines, will be called to order at 2 p. m. Thursday, by L. F. Kuehnle, Leader Oil Co., Dubuque, president of the association. Mr. Kuehnle will be followed by George Hamilton, who will deliver the address of welcome.

L. V. Nicholas, president of the National Marketers Association, will speak Friday morning on "Why We Must Develop An Industrial Viewpoint," and other speakers will include: F. A. Pielsticker, president of the Western Petroleum Refiners Assoc.; L. W. Jaeger, Bartles-Shepard Oil Co., Waterloo, Ia.; Senator William Schmedika, Glenn C. Haynes, J. R. Battenfeld, president of the Battenfeld Grease & Oil Co., Kansas City, Mo.; Lafe S. Collins, S. L. Collins Oil Co., Knoxville, Ia. and H. G. James, secretary of the American Oil Men's Association.

Ladies' entertainment has been arranged for the afternoon of Feb. 12, which will include a theatre party through courtesy of the wives of Des Moines oil jobbers. A banquet will be given in the main ball room at 6:30 on Feb. 12 to all jobbers and ladies by Des Moines jobbers. J. F. Conover will be toastmaster and an address will be delivered by La Fayette Young.

Reports of the field secretary, M. L. Long, secretary and treasurer F. W. Callanan, and of the president Mr. Kuehnle, will be read Friday afternoon. Officers for the coming year will be elected, to include besides the president and secretary and treasurer, three vice presidents and seven direectors.

N.P.M.A. Demurrer Upheld In Boyce-ite Case

Staff Special

CHICAGO, Jan. 9.—National Petroleum Marketers Association, defendant in a $1,000,000 damage suit brought last summer by Boyce & Veeder Co., won the first tilt in the legal conflict on Saturday morning, Feb. 7, when the court sustained a general demurrer to the plaintiff's declaration. The case is before Judge Timothy D. Hurley in the superior court of Cook county, Ill. At the same time that the court decided the point at issue, he allowed the plaintiff's attorneys 30 days in which to file an amended declaration.

The Boyce & Veeder Co., is the manufacturer of Boyce-ite, a widely advertised motor tonic. Damages to the extent of $1,000,000 were claimed upon an allegation of libel. The statements to which the plaintiff took exceptions appeared in a confidential letter mailed out to N. P. M. A. members last summer by L. V. Nicholas, president of the organization, in which were mentioned several motor dopes on the market at that time, Boyce-ite among them.

Benjamin Wham, attorney for the N. P. M. A. represents the organization in this litigation. Boyce & Veeder Co., is represented by the firm of McCormick, Kirkland, Patterson & Fleming, eminent as specialists in libel cases. Howard Ellis appears for the firm in court. Several months have passed since the original notice of the intending suit was made public. Plaintiff filed the original declaration last fall and Mr. Wham filed a general demurrer soon after, but no argument was heard in the case until Jan. 13.

The point upon which Mr. Wham based his first defensive move amounted to a claim that libel is impossible against a mere article of merchandise, and he pointed out that all of the remarks in Mr. Nicholas' confidential letter had been about material and not the persons and firms that made and sold it. He contended that if damage were sought for alleged defamation of property it would be necessary, under the law, to set forth specific instances of special damage and the extent of it. In substance Judge Hurley said:

The demurrer should be sustained because (1) the declaration contains that portion of the letter which concerns other motor dopes named, and other compounds, and not the plaintiff or Boyce-ite; and (2) the paragraphs which concern Boyce-ite are not libellous per se. They do not concern the plaintiff but are solely concerning the product. They thus constitute only a defamation of property and not libel. Thus, special damages must be alleged. For these reasons the demurrer is sustained.

A buyers guide for the benefit of oil jobbers, refiners and natural gasoline manufacturers will be published in next week's issue. See next issue's advertising index for page number under heading "Refinery Products Directory"

Oklahoma Production Continues Down; Crude Up A Whole Nickel

By A. F. Hinton
N. P. N. STAFF WRITER

MID-CONTINENT crude hit the $2.00 per barrel mark during the past week, attaining that figure Feb. 6, as compared with Feb. 2 a year ago. Hitting this mark, however, did not require very much of a jump from previous prices, as only five cents was added to bring it about. Thus we go from the sublime to the ridiculous, by being able to record only a "jitney" advance this week, after two hectic weeks when raises five times as great were being heralded about daily.

The Sinclair Crude Oil Purchasing Co. was responsible for this latest advance. This company, which had been paying $1.95 for oil of 41.6 degrees gravity and over, ran against stiff competition for this high-grade crude. and was impelled to add five cents a barrel to its posting. It is probable that conditions in Tonkawa were primarily responsible for this move, as the Kay County Gas Co. (Marland) previously had posted $2.00 for the same grade of oil, and operators whose oil was being run by Sinclair complained.

This action put it up to the Prairie Oil & Gas Co. to get its prices in line, as the new price represented a differential of 15 cents a barrel in favor of Sinclair on oil running from 41.6 to 42 gravity. This on account of the fact that the Prairie's highest grade is 42 and over. After thinking it over for the rest of the day, the Prairie announced today, that it also had advanced its top price to $2.00, effective Feb. 6. Other crude buyers fell into line with their usual unanimity of opinion, although the Magnolia Petroleum Co. made its new price effective today instead of yesterday.

The stage is now all set for a price of $2.25 on the highest gravity crudes, running down to possible $1.25 on the lowest, and it is quite generally believed that next week will see such prices in effect. In fact, the usual crop of rumors which invariably precede a crude advance have been flying thick for the past few days, most of them being based on "inside dope" that the raise would occur today.

Crude Rising Too Fast?

Many conservative operators, however, are hoping that crude will not be advanced further for some little time, as they believe that a runaway market now will result as it has in the past few years, that is, the development of a flood of crude by mid-summer, followed by a precipitate decline in prices. It would be much preferable, they point out, to raise crude prices gradually and to keep them on a higher level for a longer period of time. For the average producer, on the other hand, nothing looks so good as rising crude prices, and he doesn't care how fast they rise, as long as they keep on rising.

Probably the chief factor in advancing crude prices at this time will prove to be the ability of refiners to pay more and more for their requirements; when they have reached the limit of endurance in this regard crude prices will have reached their top figure. So far, there has been no slackening in the battle for crude between the refiners and the major purchasers. Offers of premiums are as general a practice as before the crude advances, and other inducements are being proposed as well. Some refiners, according to reports, have even gone so far as to offer to supply fuel, or to lay water lines, to drilling wells, in return for a contract for the crude if the well develops production.

New work is starting up in almost every section of the state under stimulus of the increased crude prices, leaving no doubt that, even without further advances, a determined search for new sources of production will be made. As an instance of this, it is reported that 20 new wells started up in the Osage alone the past week, most of them directly as a result of the crude raises. Sixteen of these wells, however, were in the Burbank field, on locations already proven but awaiting better market conditions before being developed.

Thus the next big field in Oklahoma, wherever it may be, is now, or soon will be, in process of discovery. The mystery as to its location is as deep as ever; in fact, there is absolutely nothing in sight now, to use a shopworn phrase, that gives indications of developing into a major status. However, it is well to reflect that at this time last year, when, as now, there was "nothing in sight," the Tonkawa deep sand still had not been discovered, while the total output of the Cromwell and Papoose fields was less than 1000 barrels daily. Only the most reckless prophets would hazard the prediction that we will reach July still with "nothing in sight."

Oklahoma's production declined sharply during the past week, dropping off 6367 barrels to an estimated average of 476,598 barrels daily. Cromwell was the only field in the state to show an increase, and its gain was only a small one, not large enough to offset a concerted decline on the part of the other active fields.

Cromwell added five new wells, bringing its total to 261, and increased 800 barrels in production to a daily average of 37,040 barrels. Recent developments in this field indicate that its productive area may be extended considerably to the north, possibly as much as a mile. The intervening territory will be intensively drilled up, and may result in a come-back in production for the field.

Burbank, with one less well than in the preceding week, had 1667 producers with an output of 57,000 barrels, a decline of 1300 barrels as compared with the previous week. No new wells were completed in the field during the week, and one well was abandoned and plugged, which accounts for the loss. The Osage side of the field produced 45,120 barrels daily, from 1472 wells, while the Kay county side accounted for 11,880 barrels, from 195 wells.

Papoose, with seven new wells, making a new total of 98, declined 1335 barrels in production, averaging 36,825 barrels a day. Wewoka also increased its number of wells, going up three to a new total of 107, but fell off in production. Its decrease was 1335 barrels, the same as that recorded at Papoose, and its daily average was 10,580 barrels daily. The Watchorn field, western Pawnee county, had 11 producing wells, the same as the preceding week, and averaged 8040 barrels daily, a loss of 375 barrels. Braman, in the northwest Kay county, had seven producing wells, no change from previous week, but gained 180 barrels to a daily average of 2820 barrels.

Tonkawa reported only one new well during the week, bringing its total to 746, of which 81 are in the deep sand. The field again declined in production, going off 2097 barrels to a daily average of 95,173 barrels over the week. The 81 deep wells averaged 75,605 barrels daily, as compared with 77,188 barrels last week. Although 81 deep wells have been completed, 12 of them were off production during most of the past week.

Performance of the Tonkawa deep sand wells by days during the week was as follows:

	Production	No. Wells	Average Per Well
Jan. 31	74,948	79	950
Feb. 1	78,231	80	978
Feb. 2	77,667	81	958
Feb. 3	76,648	82	934
Feb. 4	74,813	81	923
Feb. 5	73,569	81	906
Feb. 6	73,362	81	903

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In Oklahoma, during the week just closed, 69 wells were completed, of which 41 were oil wells, eight were gas wells, and 20 were dry holes. This compares with last week's report of 89 completions, divided 47 oil wells, nine gas wells, and 33 dry holes. The dry hole figure last week was an abnormally large one, as it included a number of western wildcat failures gathered on a recent survey of that territory.

The 41 oil wells included in this week's report had a total initial production of 18,041 barrels, giving them an average of 440.0 barrels per well. This is considerably below last week's record, when 47 wells brought in 25,475 barrels of new production, with a per-well average of 542.0 barrels, an unusually high figure.

Completions reported from Kansas this week were 13 in number, and were divided nine oil wells, one gas well, and three dry holes. Last week, there were nine completions reported, of which three were oil wells and six were dry holes. This week's nine oil wells had a combined initial production of 2945 barrels, an average of 327.2 barrels per well. The three wells in last week's report totaled 1320 barrels initial, with a per-well average of 440.0 barrels.

Papoose Developments

Papoose is one of those fields where production is likely to go in any direction at any time, no matter how favorable or unfavorable the indications, and where a dry hole condemns no more area than that occupied by the derrick floor. In other words, it is spotted in character, and almost impossible to forecast as to its ultimate area or peak production.

An instance of this was the performance of the Amerada Petroleum Corp.'s No. 1 Harjo, mentioned last week as showing for a good well, although apparently well down on the structure and generally regarded as an edge well before being drilled in. This well, which is located in the SWc of 36-10-9, topped the sand at 3349 and when drilled 10 feet in, to 3359 feet, was making 10 million feet of gas and 360 barrels of oil. It was then deepened into the sand by easy stages until it reached 3368 feet, where it flowed at the rate of 125 barrels an hour for several hours. The well then settled down to around 90 barrels an hour for a time, and made 1997 barrels on a 24-hour gauge about the middle of the week.

Independent Oil & Gas Co. No. 2 Sarah Alexander, in the NEc of 2-9-9, a diagonal southwest offset to the Amerada well, is in the sand from 3345 to 3361 feet, and is estimated spraying oil at the rate of about 100 barrels an hour, along with a flow of 70 million feet of gas daily. When this heavy gas was struck, the well blew wild for 24 hours, but was brought under control. Another Independent well, the No. 1 Bruner, in the NWc of 1-9-9, is drilling ahead after having had 10 million feet of gas in the Gilcrease sand at 3050 feet.

At Cromwell, all present interest is centered in the north end, where recent developments in sections 3 and 4-

Completions in Oklahoma and Kansas Week Ending February 7

OKLAHOMA

Caddo County

Company	Well No.	Description	Depth	Initial Production
English	1	SEc SE SE 32-6N-9W	T.D.2412	OWD 12M

Carter County

Company	Well No.	Description	Depth	Initial Production
Coline	1	C NE NW SE 8-8S-2W	2432–2440	115
Amerada	3	CSL N½ SW NE 28-5S-1E	1070–1982	30

Creek County

Company	Well No.	Description	Depth	Initial Production
W. Phillips	1	NEc NW SE 6-16N-9E	2721–2748	100
Tim Cushing	1	C S½ NE 11-17N-8E	2635–2665	30
Olean	2	NWc SW 32-17-8E	3461–3526	776
Pulaski	1	SWc NE NW 7-14N-7E	4100–4144	30
S. S. Home	1	NEc SW NW 14-19N-11E	T.D.2710	OWD Dry
Peer & Gray	1	SEc SE SE 32-17-12E	T.D.2432	Dry
Skelly et al	1	NWc NE NE 31-15N-9E	T.D.3683	Dry
Billingslea et al	1	NWc NW SE 24-14N-9E	1804–1809	2M
T. A. Creekmore	1	SEc SW NW 14-16-11E	1887–1893	40
Wolfe	1	SEc SW NE 33-16-8E	T.D.3925	Dry

Grady County

Company	Well No.	Description	Depth	Initial Production
Badgett-Hughes	2	NEc SW NW 22-5N-7W	T.D.3270	Dry
Cotton Patch	1	NEc SW NW 14-5N-8W	3169–3197	½M
Hagerling et al	2	C NE NE NW 35-5N-8W	T.D.1480	8M

Greer County

Company	Well No.	Description	Depth	Initial Production
Neal et al	1	SEc NE NW 3-7N-22W	T.D.1245	Dry

Hughes County—Papoose

Company	Well No.	Description	Depth	Initial Production
T. B. Slick	3	C NW NW NE 3-9N-9E	3338–3342	OWD 1000
Phillips	1	C NW NE SE 3-9-9	3283–3304	773

Hughes County—S. Weleetka

Company	Well No.	Description	Depth	Initial Production
Tidal	1	C SW NE SW 4-9-11E	3309–3060	10
Tidal	2	C SE NE SW 4-9-11	2968–2993	225
Mid-Kansas	1	C NW SE SW 4-9-11	2998–3005	5
Mid-Kansas	2	C SE NE SE 4-9-11	2896–2927	450

Kay County

Company	Well No.	Description	Depth	Initial Production
Alcorn	1	CNL SW 12-26-2W	3698–3702	890
Alcorn	1	C SE SE SE 16-25N-2W	T.D.2260	Dry

Muskogee County

Company	Well No.	Description	Depth	Initial Production
Harsha	1	SEc NW 35-15N-16E	1720-1725	OWD 6½M

Noble County

Company	Well No.	Description	Depth	Initial Production
Tidal	15	C NW SW SE 15-23N-2W	T.D.2704	Dry

Okfuskee County—Cromwell

Company	Well No.	Description	Depth	Initial Production
Tidal	2	C NE SW SW 14-10-8E	3509–3550	OWD 965

Okfuskee County—Papoose

Company	Well No.	Description	Depth	Initial Production
Carter	2	C SE SE SE 33-10N-9E	3285–3324	928, 10M
Carter	3	C SW SE SE 33-10-9E	3286–3322	935
Gypsy	1	C SE SW SE 34-10-9	3325–3329	OWD 1000
Gypsy	2	C SW SW SE 34-10-9	3319–3321	OWD 1209

Okmulgee County

Company	Well No.	Description	Depth	Initial Production
Sheldon et al	3	CSL SW NE 34-16-12E	2138–2163	700
Sheridan	3	CNL NW SW 3-15-11E	1939–1995	35
Keener	5	SEc SE 35-12-13E	2155–2167	OWD 15
Sommerville	3	NWc SE NE NW 28-14-14E	1154–1172	15
Chief Drlg	1	SEc SW SW 4-14N-13E	T.D.2700	Dry

Osage County

Company	Well No.	Description	Depth	Initial Production
Lillystrand	2	SW NE SE SE 14-21-10E	2435–2561	25
New England et al	5	SW NE SW 11-22-10E	T.D.2327	Dry
Price	4	SEc 25-24-8E	T.D.2575	Dry
Owen Osage	311	NW SW SW 30-28-11E	T.D.1866	Dry

Osage—Burbank

Company	Well No.	Description	Depth	Initial Production
Cosden	6	SW SE SW SE 17-25-6E	2895–2955	132
Texas Co	3	C SE SW NW 18-27-6E	2908–2965	215

Pawnee County—Otoe

Company	Well No.	Description	Depth	Initial Production
Magnolia	4	C NE NW NW 4-22-3E	4066–4104	1360
Josey	2	NWc NW NW 22-20-6E	2978–3038	OWD 8M
Independent	1	SWc 26-21N-4E	T.D.4136	Dry

Seminole County—Cromwell

Company	Well No.	Description	Depth	Initial Production
Gypsy	8	C NE NW SW 3-10-8E	3395–3462	540
Cosden	10	C NW SW SW 4-10-8E	3390–3430	100
Cosden	14	C NW SE SW 4-10-8	3411–3449	910
Southwestern	3	C NE SE NW 4-10-8	3374–3430	2700
Southwestern	4	C SE NE NW 4-10-8	3345–3420	10M & 600
Gypsy	3	C SE NE NE 8-10-8	3414–3460	800
Roxana	5	C NW SW SW 10-10-8	3410–3520	40
Roxana	3	C NW NE NW 10-10-8	3328–3468	80, 40M
Tidal	3	C SE NE NE 21-10-8	3423–3451	60, 1M

Seminole County

Company	Well No.	Description	Depth	Initial Production
Holm-Jarvis	1	NEc SE NE 7-9-8	3275–3302	50

Stephens County

Company	Well No.	Description	Depth	Initial Production
Grant et al	2	NWc SE NW 2-2N-5W	1252–1260	12
Lone Star	4	SEc SW NW 30-1S-8W	2212–2218	95
Magnolia	2	SWc SW 15-2S-7W	T.D.1425	Dry

Tulsa County

Company	Well No.	Description	Depth	Initial Production
Echo	12	CWL SW NE 5-19N-12E	1980–1998	30
Thompson-Black	2	CSL N½ NE NW 10-16-12E	1651–1702	2M

Wagoner County

Company	Well No.	Description	Depth	Initial Production
Dodd	3	NEc SW SE 14-17N-16E	789– 794	25
McEvoy	2	C NE SW 25-18-15E	695– 705	5M
Moss	1	NWc NW 5-17-16E	T.D.1335	Dry
Sewell et al	1	NWc SE SW 14-18-15E	T.D.1038	Dry
Allen	1	SWc SW 16-18-15E	T.D.1304	Dry
Carder	2	NWc SW 30-18-16E	T.D.1610	Dry
Korp-Ford	2	SWc SE NW 30-16-17E	T.D.1225	Dry

Washita County

Company	Well No.	Description	Depth	Initial Production
McCoy et al	1	C SW SW NE 9-9N-15W	T.D.3115	Dry

KANSAS

Butler County

Company	Well No.	Description	Depth	Initial Production
Potwin	1	SWc NW SE 31-24-4E	T.D.2689	65

Cowley County

Company	Well No.	Description	Depth	Initial Production
Trees	1	NWc 14-31-4E	T.D.3511	Dry

Cowley County—Graham

Company	Well No.	Description	Depth	Initial Production
Gypsy	3	SEc NW 24-32-4E	2957–2982	180

Cowley County—Rainbow Bend

Company	Well No.	Description	Depth	Initial Production
W. Phillips-Marland	5	NWc SW 20-33-3E	3227–3254	175
W. Phillips-Marland	7	NWc NE 20-33-3	3180–3209	690
W. Phillips-Marland	5	SWc SE 20-33-3	3216–3251	1200

Greenwood County

Company	Well No.	Description	Depth	Initial Production
Rodgers et al	2	SWc NE NW 16-25-9E	T.D.2485	Dry
McGinnis-Bittler	3	SWc NE NW 15-23-9E	2303–2386	300
Mid-Kansas	14	SEc SW SW 31-23-10	2303–2365	110
Christy	1	CEL NW NW 31-24-13E	1554–1564	½M

Marion County

Company	Well No.	Description	Depth	Initial Production
Markham	5	CEL NW NE 8-22-4E	T.D.2610	Dry

Russell County

Company	Well No.	Description	Depth	Initial Production
Streeter-Stearns	1-A	SEc SW SW 8-12-15W	2943–2990	75
Valerius	3	C NW SE SW 8-12-15W	2949–3000	150

Drilling Operations in Oklahoma, Kansas and N. Texas Feb. 7

	Feb. 7 — Week Ending					Jan. 31				
Oklahoma	Loc.	Rigs	Drg.	S.D.	Total	Loc.	Rigs	Drg.	S.D.	Total
Burbank	11	8	26	...	45	1	6	25	...	32
Other Osage	1	13	45	13	72	1	19	41	13	74
Bristow-Cushing	7	28	91	34	160	11	25	85	36	157
North Oklahoma	3	20	66	58	147	7	14	65	62	148
South Oklahoma	8	22	89	68	187	7	12	86	64	169
Muskogee	..	7	21	29	57	...	4	33	26	63
Okmulgee-Bristow	5	52	88	43	188	4	51	91	42	188
Tonkawa	2	5	48	10	65	4	6	46	11	67
Wewoka-Cromwell	9	44	242	31	326	7	38	243	32	320
Total Oklahoma	46	199	716	286	1247	42	175	715	286	1218
Kansas	59	78	190	170	497	56	69	188	177	490
North Texas										
Eastland County	..	...	9	7	16	...	...	11	9	20
Stephens County	..	13	24	24	61	...	13	32	22	67
Texas Panhandle	5	1	28	15	49	5	2	26	16	49
Mexia District	..	25	163	19	207	...	27	188	36	251
E. Texas Wildcats	..	7	10	23	40	...	9	3	35	47
W. Texas Wildcats	..	32	74	88	194	...	25	67	97	189
Wichita Falls	..	69	143	67	279	...	79	139	59	277
Total N. Texas	5	147	451	243	846	5	155	466	274	900
Grand Total	110	424	1357	699	2590	103	399	1369	737	2608

10-8, and 33 and 34-11-8 have given indications that the field is to extend a considerable distance in that direction. Many operators now believe that production will go at least another mile northward. About a dozen rigs have already been moved in, and as many locations made, in sections 33 and 34, and it is certain that these sections will be drilled up rapidly. The principal reason for this activity is the showing made by the Sinclair-Gardner well in the SWc of 34-11-8, which is now averaging 1600 barrels daily in sand from 3373 to 3431 feet, after starting off at 80 barrels an hour.

Another well in this area that has been followed with much interest is the Mutual Oil Co. No. 1 Pierce, in SWc SE¼ of 33-11-8. This well is making about 75 million feet of gas daily and spraying some oil at about 50 feet in the sand and is drilling deeper in search of the oil pay. In this test, the six-inch casing was set at 3290 feet, and total depth is now 3361 feet. This company's No. 2 on the same lease picked up a stray sand from 1845 to 1867 feet, from which it is producing a small amount of oil daily through a bradenhead while drilling is progressing. The company has six other wells on the lease either drilling or rigging up.

An interesting Cromwell development of the past week was the finding of a deep sand in the Shaffer Oil & Refining Co. No. 1-A Reuben Johnson, in the NWc NW¼ NE¼ of 10-10-8. This well is a twin to the original gas well which was the first in that part of the field, and which furnished such a spectacular fire last summer when its 62 million feet of gas burned for 12 days before being extinguished. The new well had 21 million feet of gas in sand from 3312 to 3452, but made no oil, and was drilled on down. At 3800 feet it had three million feet of gas and then found a good show of oil at 3870 feet. It is now drilling ahead in black shale.

This well is said to be the highest structurally on the Cromwell sand in the field. The sand in which the oil show was had is believed to correlate with that found in the Tidal deep well at 3992 feet. The Shaffer well is now approaching the Hunton lime, in which oil was found at around 3700 feet in the well near Maud several years ago.

Newby District

An interesting semi-wildcat test in Creek county, just northwest of the town of Newby, is the Shaffer Oil & Refining Co. Charles Wesley West No. 1 Long, in the SEc NE¼ NE¼ of 6-14-9. This well, after having found five million feet of gas at 905 feet, was drilled on down to what is believed to be the Layton sand at 1225 feet, where it was making about 35 million feet of gas and reported to be spraying oil. The Shaffer Co. has about 320 acres of leases surrounding this test, which is located on a favorable looking surface structure.

A mile and a half north and west of this well, C. G. Tibbens has recently drilled in two big wells in the Dutcher sand, the latest of which is his No. 6 Co-nei-sen-ney, in the SEc NE¼ SW¼ of 30-15-9. This well topped the Dutcher at 2988 feet, got first oil at 3010 feet, and at 3013 feet made 140 barrels the first hour, settling to a present output of around 1900 barrels daily. The same operator's No. 4 on this lease, which was brought in some time ago, is still holding up at 1780 barrels daily.

Prairie's Shipments Up in January

Staff Special

TULSA, Feb. 7.—Shipments of the Prairie Pipe Line Co. were greater by 583,536 barrels in January than in December, 1924, thus recording the fourth successive month of increases. In January, the company shipped 4,441,290 barrels through its lines, as compared with 3,857,754 barrels in December. Daily average shipments in January were 143,268 barrels, as against 124,444 barrels daily during December. The highest mark reached by Prairie shipments in the past three years was in September, 1922, when they averaged 190,705 barrels a day. Shipments for the past six months have been as follows:

Month	Shipments	Daily Average
August, 1924	3,353,251	108,169
September	3,024,324	100,811
October	3,329,588	104,503
November	3,502,938	116,765
December	3,857,754	124,444
January, 1925	4,441,290	143,268

The discovery well in this pool, brought in last November, is the Billingslea-Skelly No. 1 Carr, in the SW¼ SE¼ of 30-15-9. This well got the sand at 3022 feet and was drilled to 3028 feet. It is still making 640 barrels, but is showing about three per cent cut oil, and a treating plant has been installed.

In the Davenport district, Lincoln county, the Selby Oil & Gas Co.-Southwestern Petroleum Co. No. 1 Bagwell, which caused considerable excitement a week or two ago when it showed for a well, and which was drilled into water with only a few feet of sand, has been plugged back after having tried to shut off the bottom water. It was plugged back from 3467 to 3460 feet, where a test was made. It produced about 50 barrels, but soon began to show water again. This oil is said to test about 46 gravity.

Wortham Well Average 345 Barrels Daily

DALLAS, Feb. 7.—The number of producing wells in the Wortham field had increased to 209, Feb. 6, and they were giving up a total of 77,990 barrels of oil as of that day. This represented a per well per day average of roundly 345 barrels.

Even the putting back on production of wells that were previously in the transition stage from flowing to pumping, failed to bring about the field increases expected to result in somewhat higher daily averages.

As of Feb. 5, reports from the Wortham field showed 193 wells producing 81,420 barrels daily; and Feb. 4, with 191 wells, the field total had been 79,435 barrels.

Humble Oil & Refining Co., with 17,575 barrels daily production, was producing approximately 20 per cent of the Wortham total, Feb. 4. This total included the production of the Nos. 7 and 8 wells on the Dodd (Redus) lease, in the extreme northeast part of the field, which were making 10,125 barrels together.

Plans Refineries in New Mexico

TULSA, Feb. 7.—The Gilliland Oil Co. is planning the erection of a 500-barrel skimming plant at Roswell, N. M., and may erect a second plant of small capacity at Albuquerque a little later.

Pipe is being shipped preparatory to laying a four inch line from the Artesia oil field in Eddy county to Globe where a loading rack will be installed. The line will be 13 miles in length.

FORT WORTH, Feb. 7.—The American Refining Co.'s No. 3 Burnett Estate, Carson county, is holding up to 1000 barrels a day, according to latest reports from the field. Initial flow, after the well was drilled deeper from 2843, where the top of the pay was encountered was at the rate of 100 barrels an hour.

Rocky Mountain District Stirs up Considerable News During Week

DENVER, Feb. 6

By Special Correspondent

THE Rocky Mountain district had several interesting developments to report this week. Among the more important was an extension of the old Florence field in Colorado, the bringing in of an 800-barrel well in northwestern New Mexico, the abandonment of an important wildcat in northeastern New Mexico, the discovery of gas in the Frontier sand in northeastern Colorado, and deep sand developments in the Salt Creek field in Wyoming.

The Continental Oil Co., (Mutual) has a shale well in its Travis No. 1, on 28-20-69, Florence field, Fremont county, Colorado, at around 1800 feet. The oil is standing several hundred feet in the casing and preparations are being made to put it on the pump. The company is unwilling to venture a guess as to what the well will make before giving it a test inasmuch as the shale wells in that field are freakish but the indications are that it is one of the best drilled in for some time. The important feature of the development is that the well is about 3 miles south of the nearest producer and is, therefore, an extension of the field. Also, it is one of the few wells in the field making any gas, a considerable flow, enough to fire the boiler, having been encountered at 1320 feet. These shale wells are not large producers as a rule but they sometimes establish some wonderful time records. several shale wells in that field have pumped more than 1,000,000 barrels each in the last 40 years.

Gasser in Numa County

The Continental Oil Co. also has a gasser in its State No. 1 on 28-2S-43, Arickaree dome, Yuma county, eastern Colorado, just a few miles from the Nebraska line. The sand was encountered at 1460 feet and the flow steadily increased with depth, the hole now being bottomed 25 feet in the sand. The operation is in a direct line between the Russell county, Kansas, development and the Fort Collins-Wellington district in northern Colorado. The sand is supposed to be the Frontier and the objective the Dakota, about 600 feet deeper. However, there is a wide divergence of opinion in regard to the formations in that district. The flow has not been measured but is very large.

The Yuma county operation is a very important one. There are a series of structures in the vicinity of Wray and four or five wildcats have been started on these but most of them have been marking time awaiting the outcome of the Continental test. The Midfields Oil Co. drilled three wells in the district several years ago. Two of these were on the Black Wolf dome, just a mile or two away from the Continental test and the other on 20-2-43, less than a mile to the northwest of State No. 1. All three of the old wells showed gas, the one on Sec. 20 making 3,000,000 cubic feet from a sand at 1490 feet. Logs show that this well was down on the structure about 149 feet as compared with the new test. The old well cut 165 feet of sand and was still in the sand when drilling stopped. One of the tests on the Black Wolf structure reached the Dakota and had a showing of oil but it was not favorably located according to more recent geological reports.

Good Well on Navajo Lands

The Continental Oil Co. (Mutual, once more) has a good well in its No. 7 on the Rattlesnake dome, Navajo Indian reservation, northwestern New Mexico, from the Dakota sand at around 700 feet. The operation is jointly owned by that company and the Navajo Co. It has not yet been tested but is flowing and estimated at 800 barrels of 65 gravity oil. This structure is about 12 miles west of the Hogback dome. The best well previously completed made 300 barrels in a gauge test. When the Continental acquired a half-interest in the property a few months ago, the structure was re-geologized and it was then estimated that close to 1000 acres would be productive in the shallow sand. This is about four times the estimated productive area of the Hogback dome and the new completion gives indication that it may be a better pool as the oil tests higher though the Hogback has had much larger producers. The Continental-Navajo companies are building a topping plant at Farmington to treat the crude and are laying a pipe line from the Rattlesnake dome to tie in to the Midwest line at Hogback.

Northwestern New Mexico is again coming in for some attention. The New Mexico and Arizona Land Co. owns several hundred thousand acres in San Juan, McKinley and Valencia counties upon which several favorable looking structures have been located. This company has closed with an operating company for the drilling of four tests on four separate structures. Name of the operating company has not been made public but is believed to be the Texas Pacific Coal & Oil Co. Denver interests have secured several thousand acres under 4 government permits in the Aztec region and are making surveys and getting ready to put down tests. Bills now pending in congress will straighten out the title troubles if enacted and as more than a quarter of a million acres, most of which has been filed upon, is involved it will open up considerable activity.

New Mexico Wildcat Failure

The California Co., subsidiary of the Standard Oil Co. of California, is abandoning its Floersheim No. 1, on 15-23-24, southern Colfax county, at around 2500 feet. The structure is a large one. Drilling started in the Dakota and was a test to the Pennsylvanian. It reached the granite at the depth it was abandoned and the company considers all possibilities for finding oil exhausted. The well ran into a big pocket of non-inflammable gas at 1509 feet but struck water within the next foot. It was widely heralded that this was helium gas but as the quantity readily decreased no test of the content was made. It was, however, a very offensive gas which made the drillers sick.

This test was in the Raton basin. At the north end of the basin is located the test of the Union Oil Co. of California on the Vermejos dome near the Colorado line, which is held up at around 3200 feet. Prospects are not very favorable as the hole is said to be hot to such an extent as to almost preclude the possibility of finding oil. The Union test is in the Dakota formation but, as far as known, has not yet reached the sand.

Interest in Salt Creek

The Kinney Coastal-Texas Company deep test on 19-39-78, Salt Creek field, is reported showing considerable gas in a sand topped at 3772 feet. The test is five miles south of the Midwest's deep sand well on 35-40-79 and about 1100 feet lower on the structure. It has cut several sands showing water but careful analysis made by company officials and representatives of the Bureau of Mines indicate that it has not yet reached the Lakota sand and possibly may not yet be in the true Dakota. If it should come in as a producer it will be of immeasurable importance in disclosing the future possibilities of Salt Creek in the formations below the Wall Creek horizons.

Completions Rocky Mountain District Week Ending January 31

Company	Well No.	Description	Depth	Production
	WYOMING			
	Salt Creek			
Midwest Oil	26 A	1-39-79	1967	45
Midwest Oil	25	35-40-79	1220	250
Midwest Oil-Wyo. Asso.	23 A	36-40-79	1785	75
Salt Creek Consolidated	15 A	7-39-78	2191	63
	COLORADO			
	Yuma			
Continental Oil	State 1	28-28-43	1460	Gas
	Florence			
Continental Oil	Travis 1	28-20-69	1800	Not tested
	NEW MEXICO			
	Rattlesnake			
Continental Oil	7	Navajo Res.	700	800

Board Sends Out Third Set of Questions, This Time on Recovery Methods

Staff Special

WASHINGTON, Feb. 9

ANOTHER letter asking questions about the efficiency of present methods in the production of oil has been sent to producers, refiners, technical men in the general employment of the industry, professors in colleges and others supposed to have ideas worth putting on paper on how to make two drops of oil appear where only one flows, by the Federal Oil Conservation Board. This is the third. The first was on the reputed waste in the production of oil. The second asked for such information as might be available concerning foreign exploration and development.

Apparently, as an answer to reports in Washington and New York that the industry was not cooperating with the Board, Secretary Work, in a statement attached to the letter of inquiry said that "the cooperation on the part of the industry had been prompt and energetic. He also said the representative oil men of the country recognized that the board was not engaged in an investigation, but merely in a cooperative inquiry.

"The board wishes to hear all angles, to know all conditions, to have the benefit of the best judgment of the constructive minds of the industry," said Dr. Work. "The government, as a large producer of oil, hopes to benefit by this inquiry, for, like the industry itself, its methods are not beyond improvement. If, therefore, the government and the industry jointly can determine upon a program that will eliminate waste, stabilize productive and distributive methods, the industrial and business world will logically enjoy greater and more permanent prosperity."

Dr. Work assured the public that every letter of inquiry sent by the board had been made public, together with a list of names of those oil company officials to whom sent, to the end that the public generally might know accurately and precisely what was being done and why. The third letter is as follows:

Asks Technical Advice

"In undertaking its study, the Federal Oil Conservation Board realized the many-sided character of the problem before it. Not only the board economic and legal phases of the question must be considered, but the engineering side of the oil industry demands attention if the subject is to be adequately covered.

"There are technical problems connected with the discovery of the oil, with the recovery of the oil from deep sands, with the transportation and refining of the crude oil, and finally with the efficent utilization of all of the products. In order to assemble the ideas of men who have been studying one or several of these problems, you with others are being asked for your opinions on certain phases of the situation, and we will be glad to hear from anyone on the subject.

(1) "With this brief expression of the board's purpose before you, we would appreciate your views on some of the fundamental phases of oil recovery. (a) Is the industry utilizing to the best advantage in the recovery of the oil the gas dissolved in or mixed with crude oil under pressure within the interstices of an oil sand? It is generally recognized that this gas pressure is the motive force that moves oil through a sand to a well and in many instances of flush production causes the well to flow. Facts available indicate that the quantity of gas used in flowing a barrel of oil is often equal to the amount originally dissolved in 10 or more barrels of oil before drilling took place. (b) How is the dead oil, depleted of its gas and lying dormant in the sand and dependent on drainage by gravity into a well, ever to reach a gage tank?

(2) "An oil field with gas under high pressure in the higher parts of producing sands may have oil below the gas and water below the oil. (a) Can the free gas be utilized to replace the gas produced with the oil thereby rejuvenating, as it were, the dead oil left behind in the otherwise depleted parts of the producing sands?

(3) "In the actual operation of flowing oil wells the gas is frequently considered as a by-product incident to production of oil and after it is squeezed of its gasoline content but little heed given to its efficiency as a producing agency. (a) How can this gas as a practical measure be made an oil producing force? (b) Can you suggest general methods, or those applicable to specific conditions with which you are familiar, whereby a given quantity of gas could be made to produce more oil? (c) What additional percentage of oil in any pool or field with which you are familiar do you estimate might be recovered by employment of the gas primarily for this purpose? (d) Would the value of the gas possibly lost by use by this method and the cost of its application be probably greater than the oil thereby gained? (e) Can gas be profitably transported from one oil field to another in this country for the purpose of bringing oil to wells, and if so where and under what circumstances?

Wants Data on Stimuli

(4) "Under the heading of artificial stimulation or rejuvenation of production would come the flooding of otherwise depleted oil sands with water, the forcing of air or gas into the sands under pressure, the application of heat to oil in the sands, the use of a vacuum at the casinghead, and the mining of the oil sands. Perhaps some of these processes may never have wide application in this country, yet some are extensively used even now. (a) Will you give us the benefit of your ideas on these or any other methods of securing additional yield from otherwise unproductive oil sands and of increasing the recovery of oil from the sands? (b) What is your estimate of recovery under methods commonly used? (c) With new or improved methods of recovery, making for conservation, what means do you consider equitable and practicable for applying the economy to all of the Nation's oil resources rather than only such part as may be owned by the company controlling the patent?

(5) "Under the heading of substitutes for well oil is the promising possibility of the low temperature distillation of oil from carbonaceous materials such as oil shale, lignite, peat, and various coals. If any considerable part of the 2,000,000 barrels of oil which represents approximately our present daily output is to be replaced by substitutes, we are immediately confronted with large mining and retorting installations representing a vast outlay of capital. These are economic phases, but their general aspect must be kept in mind by the technical man in order that his suggestions may contribute to the major problem. (a) Can you give any information or offer any suggestions on this subject of substitutes?

"Please be assured that the ideas or suggestions made to the board in response to this letter will be considered as tentative and not as something you will be expected to demonstrate or defend. What is sought is some general consensus of the best technical opinion, with specific suggestions as to ways and means from those qualified to advise this board, and therefore we urge your full cooperation."

Among those to whom the letter was sent were:

Ambrose, A. W., Empire Companies, Bartlesville.

Arnold, Ralph, 639 S. Spring St., Los Angeles.

Ball, Max W., president, Ute Petroleum Co., and Western Pipe Line Co., 1104 First National Bank Bldg., Denver.

Beal, Carl H., Pet. Geol. & Engr., 10th Floor, 200 Bush St., San Francisco.

Beecher, C. E., Empire Gas & Fuel Co., Bartlesville.

Bush, R. D., California State Mining Bureau, Ferry Building, San Francisco.

Buttran, Frank, 601 W. 14th St., Oklahoma City.

Catlin, R. M., Min. Engr., New Jersey Zinc Co., Franklin, New Jersey.

Clapp, F. G., Suite 2025, 30 Church St., New York City.

Clarke, H. C. O., Humphreys Boyd Oil Co., Dallas.

Cooper, H. C., Hope Natural Gas Co., Pittsburgh.

DeWolf, F. W., Humphreys Boyd Oil Co., Dallas.

Dierickx, A. C., president, Honolulu Consolidated Oil Co., 120 Market St. San Francisco.

(Continued on next page)

(Continued from preceding page)

Dumble, E. T., 316 Southern Pacific Bldg., Houston.
Emmons, W. H., University of Minnesota, Minneapolis.
Estabrook, Edward L., Geol., Midwest Refining Co., Casper.
Fisher, C. A., 711 First National Bank Bldg., Denver.
Franchot, N. V. V., Olean, New York.
Gael, H. S., 1775 Hill Drive, Eagle Rock, Los Angeles.
Gardiner, James H., president, Gardiner Pet. Co., 121 E. 6th St., Tulsa.
Gaylord, E. G., Geol., Pacific Oil Co., 79 New Montgomery St., San Francisco.
George, H. C., University of Oklahoma, Norman, Okla.
Gester, G. C., 617 Standard Oil Bldg., San Francisco.
Gregory, T. B., president, Manufacturers Light & Heat Co., 248 4th Ave., Pittsburgh.
Hamilton, Walter R., Pet. and Min. Engr., 1325 S. Boston Ave. Tulsa.
Hares, Chas. J., 305 Franklin St., Denver.
Heald, Prof. K. C., Yale University, New Haven, Conn.
Hopkins, E. B., Room 953, 25 Broadway, New York City.
Howard, Frank, Standard Exploration Co., 26 Broadway, New York City.
Hurley, P. J., president, Gilliland Oil Co., Tulsa.
Johnson, Roswell H., Prof. of Oil & Gas Production, University of Pittsburgh, Pittsburgh.
Kirwan, M. J., Indian Territory Illuminating Oil Co., Bartlesville.
Leovy, F. A., first vice-president, Gulf Refining Co. of La., Frick Bldg. Annex, Pittsburgh.
Lewis, James O., Pet. Engr., Smith, Dunn & Lewis, Kennedy Bldg., Tulsa.
Lombardi, Maurice S., Pacific Oil Co., 79 New Montgomery St., San Francisco.
Lupton, C. T., 617 Gilpin St., Denver.
McCoy, A. W., Geol., Marland Oil Co. of Colorado, Denver.
Mills, R. Van A., Bureau of Internal Revenue, 14th and B Sts., Washington, D. C.
Myllius, L. A. McBride Oil Co., 506 Olive St., St. Louis.
Moore, E. T., president, Simms Oil Co., 1500 Magnolia Bldg., Dallas.
Munn, N. J., Cosden Bldg., Tulsa.
Naramore, Chester, Sinclair Consol. Oil Corp., 45 Nassau St., New York City.
Ohern, D. W., 515 W. 14th St. Oklahoma City.
Oliver, Earle, Ponca City, Okla.
O'Neal, F. E., Geologist, Pan American Oil Co., Taft, Calif.
Pack, R. W., Sun Co., Beaumont.
Perdew, W. E., Derby Oil Co., Wichita.
Phillips, T. W., Jr., president, T. W. Phillips Gas & Oil Co., Butler, Pa.
Powers, Sydney, Box 2022, Petroleum Bldg., Tulsa.
Pratt, Wallace E., Humble Oil & Refining Co., R. 912 Humble Bldg., Houston.
Shaw, E. W., 11 Taylor St., Chevy Chase, Md.
Skelly, W. G., president, Skelly Oil Co., Tulsa.
Swigart, T. E., Shell Co. of Calif., Higgins Bldg., Los Angeles.
Templeton, R. R., Union Oil Co., Los Angeles.
Thompson, Arthur W., president, Philadelphia Co., 435 6th Ave., Pittsburgh.
Tickell, F. C., Leland Stanford University, Palo Alto, Calif.
Umpleby, J. B., 710 Chautauqua Ave., Norman, Okla.
Uren, Lester C., University of Calif., Berkeley, Calif.
Van Waterschoot van der Gracht, W. A. J. M., Marland Refining Co., Ponca City, Okla.
Wagy, Earl, Standard Oil Co., of Calif., San Francisco.
Wagemann, C. H., Midwest Refin. Co., First National Bank Bldg., Denver.
Washburne, C. W., 2 Rector St., New York City.
Williams, W. A., Geol. & Min. Engr., acting president, White Oil Corp. 61 Broadway, New York City.
Winchester, Dean E., 607 E & C. Bldg., Denver.
Wyer, S. S., Columbus, Ohio.

Increase in Recovery is Viewed as Real Problem

THE views of Dr. Lester C. Uren, associate professor of petroleum engineering, University of California, were solicited by National Petroleum News, immediately after the Federal Oil Conservation Board sent its first questionnaire to prominent men in the industry. While Dr. Uren preferred to withhold from publication his reply to the questions asked, his more general comment on the move to conserve oil and gas is timely. It is as follows:

"I found many of the questions propounded by the board difficult or even impossible to answer in definite terms and I was unable to propose or endorse any panacea for the ills that afflict the oil industry. The Doherty Plan would appear to present serious difficulties. Mine would be a "safe and sane" program with chief reliance on the fundamental laws of supply and demand rather than upon new legislation to provide the necessary correctives.

"I do not regard the future as particularly menacing either from the immediate standpoint of over-production or the future probability of under-production. Over-production is not likely to be a factor of such importance in the years ahead and if insufficient oil is produced from present sources to meet the future demands the public must pay such a price for oil products as will be necessary to bring forward an adequate supply from other sources, that is, from either foreign oil fields or domestic shales, probably both.

"A greatly increased scale of oil prices in comparison with present day markets seems inevitable within the next few years.

"With regard to oil field wastes and methods of increasing petroleum recovery which are stressed in the board's questionnaire as constituting one of the important issues for consideration, the writer felt better qualified to advise, having been engaged in a program of research along these lines for the last six years. Of the many different losses and wastes that might be mentioned under present methods of recovery, the underground losses due to inefficient drainage of the oil sands and dissipation of natural gas resulting in failure to secure its maximum expulsive effect on the oil is the outstanding problem.

"The writer has supervised tests which have indicated that present recovery by usual methods seldom exceeds 25 per cent of the oil actually present in the sand. Technical study of methods which seem to offer promise of effecting more efficient extraction might conceivably double or even triple our apparent reserve of petroleum from present known fields. I have therefore emphasized the advisability of more intensive technical study of this and related problems as one of the most promising avenues of conservation."

Humble Buys Gasoline Plants in Texas

FORT WORTH, Feb. 5.—Humble Oil & Refining Co. has purchased three plants from the Westova Gas Corp., a company controlled by the Hope Engineering & Supply Co., of Mount Vernon, O. Properties which were acquired by the Humble include the Atlantic gasoline plant, 14 miles southeast of Breckenridge, the Walker booster plant, nine miles east of Breckenridge and the new Westova gasoline plant, six miles north of Caddo.

The plants, which have a daily capacity of 40,000 gallons, are now running 30,000 gallons. The properties include feeding lines, loading racks at Frankell and 10 tank cars.

The Humble has already taken possession of the properties. The Hope retained its interest in the J. T. Plant, two miles southeast of Breckenridge.

NEWKIRK, OKLA., Feb. 5.—Newkirk Refinery Co., newly-organized, will increase its capacity from 2000 barrels a day to 5000 barrels. The company has just ordered 150 tank cars.

Officers are: C. N. Atkinson, president; J. M. Beesley, vice president and treasurer; W. D. Campbell, vice president and sales manager; J. B. Atkinson, secretary; and O. O. Ziegler, superintendent.

The Kentucky Rock Asphalts— Their Character and Utilization

By C. P. McCormack,
Consulting Mining Engineer, Crowell & Murray, Cleveland, O.

KENTUCKY has acquired fame in her production of beautiful women, fast horses, coal, oil and tobacco. Now a material called rock asphalt is added to the list and it promises to be of wide spread importance as a road surfacing metal.

Rock asphalt, as found in Edmonson county, Kentucky, is a fine-grated sandstone evenly impregnated with bitumen. The bitumen is of about a 60 per cent asphalt base and has all the appearance of being an asphalt petroleum residue. The remaining 40 per cent content is petrolene which imparts the excellent binding qualities to the bitumen.

Each small, sharp grain of pure silica sand is coated and the interstices filled with bitumen. The bitumen content varies between one per cent and 15 per cent by weight of the sandstone. Merchantable rock suitable for road surfacing carries a constant seven per cent content which percentage has been accepted as being the best for roads. The rock below this content is classed as unfit and, unless it can be graded up to seven per cent by material carrying excessive bitumen, it is thrown aside.

The bituminous sandstones occur in the Pottsville conglomerates and the immediately underlying Chester sandstones of the Lower Pennsylvanian system. The bituminous measures extend through Grayson, Edmonson and Warren counties with scattered areas, throughout the total, containing appreciable bitumen. But the only commercial area lies in the north central part of Edmonson county between Nolin River and Bear Creek and extending south some five miles from the north county line. The productive rock, lying as a fairly flat sheet, is at or near the surface along the north eastern edge of this area and gradually dips to the southwest under the capping sandstones. It varies in thickness between 10 feet and 80 feet with many abrupt changes in quality and thickness.

Probably Once a Pool

At the present time these formations are the eastern upslope of a large syncline extending under west central Kentucky. But in some past geological age they were the western limb of a great anticline that covered eastern Kentucky. This structure has long since been eroded away. It is very likely that this former anticline held oil in the dome and, as erosion wore it down, the oil migrated on release of pressure leaving its trace in the bituminous rock area. These rocks were probably the upper limit of the impounding water in the present syncline which confined the oil in the former dome.

Variable porosity of the sandstones would account for the changing bitumen content, both horizontal and vertical, encountered in the beds. It is probable that similar bituminous rock can be found on the flanks of exhausted asphalt base oil domes which produced from close textured sands. Release of pressure through the wells would allow the volatiles to escape leaving behind the heavy residue. Of course the great depth of these precludes any mining of the rock.

The subject of rock asphalt—bitumen impregnated sedimentary formations—is related to the oil industry in that these deposits occur in many parts of the United States in regions adjacent to oil fields and on leaseholds of oil companies. National Petroleum News has had inquiries as to the situation in Kentucky and recently asked Mr. McCormack, who has studied this field, to write a brief, general description of it.—Editor.

The Lower Pennsylvanian system is underlain by the Mississippi limestones and Devonian shales which are oil productive farther to the east and in Warren county to the southwest. That no oil or gas was found down to 2000 feet in several holes drilled in and about the bituminous rock area is due to the prevalent small lenticular type of pool encountered in these formations. Unless the hole happens to strike directly into the pool, no indications can be found hence drilling is always of a wildcat nature.

The existence of the beds of asphalt rock has been known of for a long time but, because no wide use could be developed, the operation of them on a commercial scale had to await the general good roads movement and capital investment of such magnitude that could provide for economical extraction and far flung sales organizations. The region has been deeply eroded into precipitous water channels that prohibit rail connections to the nearest railways which run south about 10 miles to the east and west. These gulches have also cut the once continuous bed into a large number of isolated bodies thus complicating the mining and making certain portions unprofitable to mine even though the rock is merchantable.

Rock Barged Out

Transportation of supplies to and product from the district is all by barges towed by shallow draft tugs on the Nolin River and lower Bear Creek to their junctures with the Green River to the south. Thence towed to rail shipping points either on the Green River or the Big Barren River which flows south out of the Green River. The roads in the district—like the farmer who never has fresh vegetables—are mere tracks winding around the hills and they prohibit any truckage. The country is sparsely populated by old Kentucky agricultural stock which to date is the main source of labor. A limited amount of third growth scrub timber is scattered over the region. Thus the mining area is accessible with difficulty and the operations are attended with many troubles that are only surmountable by large capital interests with competent technical staffs. The price obtained for the product is amply justified by the mining hazards and the exceptional qualities of the rock.

There are now but three operating companies, the largest of which has only been producing commercially during the past four years. About all of the merchantable deposits are either held by these or a few development companies. Based on the growing demand for and apparent profit in asphalt rock, a great many promotion companies have been floated—and sunk—but now the industry seems to have stabilized and is in the hands of earnest and capable organizations who are maintaining constant quality and gradually spreading their product throughout the country.

Quarrying Methods Used

Extraction, at present, is all by quarrying methods using small steam shovels and dinkey equipment. The beds now worked lie near the surface and are along Nolin River and Lower Bear Creek. Overburden, consisting of top soil but mainly sandstone, up to about 30 feet in thickness can be profitably stripped off when the asphalt rock layer averages 15 feet or better. It is seldom found though that the bed is entirely merchantable, therefore considerable selective mining must be done within the layer. It usually requires four to five tons of stripping and worthless rock to be handled to one ton of shipping rock produced.

Exploration and development of the measures are done with core drills. Care must be taken in releasing the drill bit, which tends to stick in the asphalt rock, that a minimum amount of gasoline be used else the core will be badly leached. Drilling is at very close intervals ahead of the mining. Outcrops of the asphalt rock indicate its presence but, due to their leached condition wherein unestimatable weathering has drawn out a large proportion of the bitumen, the true character can not be ascertained within 25 feet of the exposure.

The mined rock is crushed by means of primary crushers and secondary rolls to about 30 mesh size in which form it is ready to lay. Very careful and constant sampling is required at all stages in the

mining and preparation processes in order that the finished product will average the specified seven per cent bitumen. The crushed rock is loaded into 200 ton barges, towed to the rail shipping point and there unloaded by crane and clamshell into cars for shipments that are widening throughout the entire Eastern United States. Each car is resampled so that the purchaser can rely on obtaining the correct grade.

Kentucky rock asphalt has been laid on roads in various sections, though in very limited quantity, as far back as 1912 and, wherever the base was of the proper construction, these surfaces are today in excellent shape. Some of these old surfaces have been recently tested and found to contain the same bitumen content as they had originally.

Rock is Laid Cold

The crushed rock is laid on the base in a 2" thick layer and rolled down to 1½" forming a hard dense surface. The pure silica grains resist abrasion and weathering. The bitumen so intimately associated with the quartz binds the mass into a waterproof, resilient sheet. Increased and heavy traffic gradually consolidates this surface until it is in its original rock form. Yet no bitumen is lost at high temperatures unless the road base breaks down when it would allow for downward percolation and weathering.

Fluctuating temperature extremes do not seem to affect it. Because no preheating or further preparation is required, it can be laid with minimum expense and during adverse weather conditions. It is self evident that such a natural impregnation, wherein each wear resisting quartz grain is enveloped and bound with bitumen, would make a better surfacing material than any artificial mixture in which varying sized lumps of rock are more or less imperfectly coated with asphalt.

The price of Kentucky rock has varied between $10 and $8 per short ton f.o.b. rail shipping point and is holding now at the latter figure. With sales commissions and freights, this makes a cost of about $16 a ton, New York. The results obtained, wide adaptability and increasing demand seem to justify this expenditure. The growing use for it will be in resurfacing concrete roads which, while they are breaking up, have the necessary base and only need a smooth unfractured surface. Patch work on roads is also another large use. There is no apparent reason why it can not be used for industrial and domestic basement flooring, sidewalks and miscellaneous treadways.

Extraction of the bitumen content in the rock in an endeavor to recover any distillates does not offer any possibilities. The greater proportion of asphalt in the bitumen and which can not be broken up into any commercial products leaves but a small percentage of petrolene capon this average three per cent of petrolene would eliminate any feasible process. It able of distillation. The recovery cost seems most probable that the entire future of Kentucky rock asphalt will rest in its road making qualities.

Better Crude Prices Bring Cheer in Pipe and Plate Markets

PITTSBURGH, Feb. 10.

SHOWING immediately improved conditions because of the higher prices prevailing on crude oil, the tubular goods sellers are greatly encouraged over the way business is coming in, and over prospects.

Last week orders from jobbers were particularly numerous, although orders direct from the oil companies are in the minority. One of the largest in several weeks involving perhaps 25,000 tons went largely to a Youngstown, O., maker. This order was placed by the Marland Oil Co., for 6 and 8-inch line pipe for a line to run from the Sour Lake field in Texas to the refinery of the Humble Oil Co., a distance of about 200 miles.

The Houston Oil Co., is making financial arrangements for a line in Reagan county, Tex. Orders placed by oil country jobbers in all parts of the country are more numerous. These involve 250, 375, 410, 550 or 625 tons at a time—those tonnages being typical. Prices are firmer in that buyers are satisfied with quotations made on the basis of the card which next April will be two years old—no concessions from the discounts now are obtainable.

Pipe mill operation continues to average 85 or 90 per cent of capacity. Orders from the various oil fields call for drill and drive pipe, casing, etc., usually three to five carloads at a time.

Exports of oil well machinery keep up at a fair rate, although for December, 1924, there was a falling off in value of about $150,000. In December, 1924, shipments of oil well machinery abroad were valued at $349,825 as against $496,764 for the same month in 1923. For the 12 months ended Dec. 31, 1924, the total was $6,399,165 while for all of 1923 the total value of exports was $6,626,079.

In connection with tin plate the most recent order from abroad came from the Nippon Oil Co. of Japan for 40,000 base boxes, divided between Mitsui & Co., and Iwai & Co. of New York. Domestic oil companies are practically covered for all needs in sight for the first half of the year. The present market price is $5.50 per base box 100 pounds, f. o. b. Pittsburgh district mills.

The plate market is stronger. Pittsburgh mills lately have advanced their prices $2 or $4 per ton and now quote 2.20 cents a pound, for the second quarter. Deliveries against 2.00 and 2.10 cent contracts are heavy since specifications are coming in freely. Cleveland mills understand that the order for 10 stills from the Utah Oil Refining Co., has been placed, taking 300 tons. The Gulf Refining Co., expects to place an oil tanker this month involving 5500 tons of plates. Bids are asked by the Quaker City Oil Line on 100 50-ton, 120 40-ton and 20 30-ton tank cars and the Phillips Petroleum Co., is in the market for 500 tank cars.

The Pan American Petroleum Corp., has awarded contracts for buildings at the foot of Fifth ave., Oakland, Cal., to an unnamed fabricator, involving about 410 tons of reinforcing concrete bars. Pittsburgh mills quote 2.10 to 2.20 cents a pound.

The Standard Oil Co., of Indiana has revised plans for constructing one and two-story garage and machine shop buildings, 80 x 200 feet of reinforced concrete at Fourteenth and McCasland ave., Chicago. Schlinz & Bailey, Monadnock building, Chicago, are the architects.

The Coney Island Co., Cincinnati, O., has awarded a contract to the Midland Barge Co., Midland Pa., for a wharfboat. This will cost $60,000 and will have 18 tank compartments for oil storage.

Arkansas Oil Men Plan Big Meeting Feb. 18

EL DORADO, ARK., Feb 9.—The Arkansas Petroleum Club and the Louisiana-Arkansas division of the Mid-Continent Oil & Gas Association will hold a joint meeting here Feb. 18, according to an announcement sent out by Victor H. Smith of the Lion Oil & Refining Co., who is president of the Arkansas Petroleum Club and vice president of the Mid-Continent Oil & Gas Association.

The Arkansas Petroleum Club numbers as members 300 representative oil men and Mr. Smith says the meeting will be an important one. Application has been made to the railroads for reduced rates from points in Arkansas, Louisiana, Texas and Oklahoma and plans are perfected for the accommodation of 1000 visitors if necessary. This is the first time that the Arkansas branch has attempted to present its important part in the oil industry, Mr. Smith says.

Speakers will include: J. Edgar Pew of the Sun Oil Co., president of the American Petroleum Institute; Captain J. F. Lucey of the Lucey Manufacturing Corp.; D. E. Buchanan, Chestnut & Smith, president of the Association of Natural Gasoline Manufacturers; Pat Malloy, of the Constantin Refining Co.: H. C. Couch, president of the Arkansas Light & Power Co.; Charles F. McCain, president of the Bankers Trust Co. of Little Rock and others. Efforts are being made to have the addresses broadcast over the radio.

Among those specially invited are the presidents of the Western Petroleum Refiners Association and the Mid-Continent Oil & Gas Association and the president of the Missouri Pacific Railroad.

New Connections Made in Cross Cut Area

DE LEON, TEX., Feb. 6.—The De Leon Pipe Line & Refining Corp. has extended its line from Pioneer to the Cross Cut field where Pope & Wilson, who represent the production end of the corporation, have considerable acreage, and E. R. Wilson, of the firm, owns personally considerable more. The line is now connected with a number of new properties.

The wells in this field, says Weston Atwood, of the corporation, while not of the gusher type are consistent producers. The discovery well on the Prather farm is over three years old. It came in at about 27 barrels and is still making 12 barrels daily. Owing to poor marketing conditions, the well did not have the proper care. Sand is found at about 1200 feet. The field has not been tested for a deeper sand. The field is fairly well defined and produces oil of about 42 gravity. The chief handicap to development is lack of water.

Reagan Purchasing Co. Directors Meet

By Special Correspondent

FORT WORTH, Feb. 7.—Ratification of the various trades between the producers in Reagan county and the Marland Oil Co., and its new subsidiary which is to take crude from the new field, all of which have been announced previously, formed the routine business of the meeting of directors of the Reagan County Purchasing Co., held in Fort Worth this week, according to George Marland, president.

The production of the field is expected to be above 20,000 barrels daily by the time the Humble line is finished. As has been previously published, the Humble is building the line to Reagan, under arrangement with the new purchasing company.

Directors attending the meeting were: George Marland, president; H. B. Drake, vice president and treasurer, W. A. Moncrief, Frank Pickrell of the Texon Oil & Land Co. and Levi Smith, of the Big Lake Oil Co.

Humphreys-Boyd Takes Reagan Acreage

By Special Correspondent

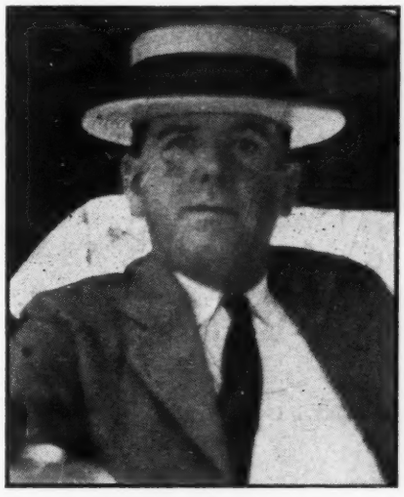
FORT WORTH, Feb. 7.—The diamond drill is to be used for the first time in Reagan county by the Humphrey's-Boyd Oil Co. Core drilling will be undertaken before development exploration of the block of 24½ sections, acquired last week by the Humphreys interests, according to plans that became known this week.

The Humphreys-Boyd tract is out of the Bar S ranch, owned by the Sawyer Land & Cattle Co., in Reagan and Irion counties, and the particular 24½ sections is out of the west side of the ranch. The price paid was not made public by L. L. Farr, Sr., San Angelo, who is secretary-manager of the ranch.

Hanrahan President of Humble P. L.

Staff Special

HOUSTON, Feb. 5.—Ralph V. Hanrahan, until recently vice-president and general manager of the Humble Pipe Line Co., was elected president at the annual directors meeting held in Houston, Feb. 2. His rise to official recognition as the head of the Humble Pipe



Ralph V. Hanrahan

Line follows a period of time in which the operating responsibility had been already upon his shoulders.

Mr. Hanrahan came to the Humble Pipe Line from the Standard Oil Co. of Louisiana, where he was a foreman in the Vivian, La., district, under James Anderson, then general superintendent of the Pipe Line department at Shreveport.

When Mr. Anderson came to Houston as president of the Humble Pipe Line Co., Mr. Hanrahan also was transferred from the Standard organization. He became vice-president and general manager of the Humble Pipe Line organization when W. M. Cleaves of the legal department was made president and Mr. Anderson succeeded to a vice presidency in the parent Humble Oil & Refining Co.

W. S. (Buck) Pillow, until now secretary-treasurer, has been elected vice-president and treasurer; R. S. Burdick is the new secretary and assistant treasurer; and C. D. Voss is assistant secretary.

At the stockholders' meeting held immediately prior to the directors meeting, the following directors were elected for 1925: R. V. Hanrahan, W. S. Pillow, W. M. Cleaves, John C. Townes, F. F. Mellott and J. A. Neath.

The stockholders voted to increase the capital stock of the pipe line company from $12,000,000 to $24,000,000. This increase was necessitated by reason of the need for additional capital for financing the extension of the company's facilities in Reagan county, and elsewhere in Texas, in an attempt to meet more effectively the expanding demands of the oil producers served by this organization.

Constantin Refining Co. Is Re-Organized

TULSA, Feb. 7.—Reorganization of the Constantin Refining Co. was completed here today by the bondholders' protective committee which bought in properties of the defunct company at bankrupt sales. The reorganization was completed following the purchase of properties of the Constantin Oil & Gas Co. on Feb. 5.

Pat Malloy, receiver for the Constantin Refining Co., since March 29, 1923, was elected president of the new corporation which is to be known as the Constant Refining Co. The directorate of the new company will consist of the former bond holders protective committee.

Offices of the corporation will be maintained on the 7th floor of the Kennedy building here. The company plans to resume operations of the refineries.

Second Big Well Found in Ventura Field

LOS ANGELES, Feb. 9.—The little town of Ventura, which was suddenly awakened from drowsiness 10 days ago when the Associated Oil Co. completed a 4500 barrel well in the old Ventura Avenue field, was agog with excitement yesterday when the Associated brought in its Lloyd No. 16, producing 4500 barrels of 30 gravity crude from a depth of exactly one mile.

This producer and the Lloyd No. 9-A which was recently completed as the biggest well the field has ever known are reported to be yielding a total of 10 million cubic feet of gas per day, sufficient to meet the needs of all gas users in Ventura and Santa Barbara counties, it is estimated. These two wells were a distinct surprise to the oil industry.

Because the old Ventura Avenue field had been drifting along for 15 years with 18 or 20 wells on production yielding an average of 300 barrels apiece per day, drilling into a sand 1000 feet deeper than the old holes by the Associated hit the "gusher" production and Ventura took on mining camp airs over night. Real estate men report that within the last week $250,000 worth of leases in the field have changed hands. An offer of $20,000 is said to have been refused by one of the city trustees for a piece of land which he bought 12 years ago for $40. City officials say that 30 families attracted by the new find have arrived in the city within a week.

TULSA, Feb. 9.—The Waite Phillips Co. has completed its line from the Rainbow Bend field to its recently acquired refinery at Wichita and has begun operation of the plant. The Sterling plant which was bought from receivers has a capacity of 5000 barrels of crude per day and Dubbs and Fleming cracking equipment. V. R. Oakley who has been superintendent of the Phillips plant at Okmulgee for several years is superintendent of the new plant. He has been succeeded at Okmulgee by T. T. Granger, formerly superintendent of the Pierce Petroleum Corporation.

Gulf Coastal Completions, Week Ended February 7

Company	Lease—Well	Field	Depth	Production
Humble Oil & Refining Co	Winfree 11	Orange	4675	800
Mutual Oil Co	Chesson 9	Orange	4375	75*
Gulf Production Co	Chesson 2	Orange	4650	Aband.
Gulf Production Co	Chesson 3	Orange	4500	Aband
American National Oil Co	Winfree 1	Orange	4675	Aband.
Republic Production Co	Dolbear 90	Hull	3300	Aband.
Republic Production Co	Dolbear 98	Hull	2020	310
Republic Production Co	Dolbear 99	Hull	1425	100*
Higgins Oil & Fuel Co	Taylor 5	Hull	3900	850
Gulf Production Co	Phoenix 44	Hull	3200	850
Gulf Production Co	Baldwin Fee 11	Hull	3100	150
Yount Lee Oil Co	Strengler 1	Hull	2900	Aband.
Winfrey et al	Pickett 1	South Dayton		350*
Humble Oil & Refining Co	Simms Smith 59	Goose Creek	4725	Aband.
Acorn Oil Co	Paraffine 51	Batson	660	Aband.

*Pumping.

Completions in North Louisiana and Arkansas Week Ended February 5

LOUISIANA

Cotton Valley

Company	Well	Location	Depth	Yield
Albama Pet. Co	Ramsey No. 1	19–21– 9	2530	110
Humble O. & R. Co	Davis No. 4	13–21–10	2512	225
Ohio Oil Co	Bodcaw No. 13	15–21–10	2523	300
Ohio Oil Co	Sidney Estate No. 2	16–21–10	2542	175

Caddo Parish

Dixie Oil Co	La. State No. 4	13–21–15	1635	30
Thall Oil Co	H.I.& B.Co.No.6	14–21–15	1636	25

TEXAS

Panola County

Industrial Oil Co	Brumble No. 2 Mitcheson HRS		1975	5 m. gas
Thomason et al	G. C. Tiller No. 1 Jas. Story HRS		997	7 m. gas

ARKANSAS

Drew County

Company	Well	Location	Depth	Yield
Rhodes et al	Harrison No. 2	5–13– 8	2308	s.w. aband.

Smackover

Gulf Refining Co	M. Alphin No. 11	2–16–15	2005	25
Gulf Refining Co	H. Murphy No. 3	2–16–15	1995	50
Natural Gas & Pet. Co	Murphy No. 5	8–16–15	2390	35 m. gas
Lion Oil & Ref. Co	Graves No. 6	3–16–15	2500	1200
D. N. Johnson	Ferris No. 3	34–15–15	1965	160
Ellis & Dumas	Forrest City Box Co. No. 3	31–15–16	2260	75
W. G. Burton, trustee	Hughes No. 11	21–15–16	2295	20
Best Oil Co	Miner No. 2	20–15–16	2338	70
Texas Oil Co	Reynolds No. 3	23–15–17	2325	125
Hunt et al	Anderson A-4	23–15–17	2310	50

Completions North-Central and West Texas Week Ended February 7

PANHANDLE DISTRICT

Carson County

Company	Well No.	Lease	Depth	Production
American Refining Co	3	Burnett Estate	2850	2100

WICHITA FALLS DISTRICT

Wichita County

Wich-Tex Oil Co	1	McFall	1945	Aband.
Wich-Tex Oil Co	2	McFall	440	Aband.
Staley et al	6	Ramming	1690	10
Texhoma Oil & Refg	7	Burnett	1820	60
Magnolia Petroleum	8	Waggoner Bros	1940	Aband.
Magnolia Petroleum	8	W. T. Waggoner-A	2190	Aband.
Magnolia Petroleum	2	J. A. Watkins	1765	80
Humble Oil & Refg	4	Burnett et al	1605	Aband.

Throckmorton County

Plains Production Co	1	Wise	1500	Aband.

Baylor County

Texhoma Oil & Refg	1	Portwood	1500	Aband.

Archer County—North

Waite Phillips	5	L. F. Wilson	1520	200
Waite Phillips	6	L. F. Wilson	1521	400
Wirt Franklin	2	W. F. Parrish-B	1550	125
Simms Oil Co	5	W. F. Parrish	1605	100
Underwood Drilling Co	1	L. F. Wilson	1700	Aband.
Roy I. Carter et al	18	J. H. White-E	1610	50

Archer County—South

White Brothers	1	Kunkel	1150	1350
Andrade & Harvey	1	Kunkel	1150	1700
Roxana Petroleum	4	J. W. Kunkel	1175	450
Murchison & Fain	14	T. L. Griffin	1297	100
Maxwell, Sullivan & Grebin	1	Harbeson	1605	Aband.
Willetts & Murphy	4	T. L. Griffin	1300	Aband.
Muse et al	1	Brazina	1550	Aband.
Electra Gulf Oil Co	1	Andrews	1800	Aband.
Grisham & Parks	7	C. L. Davis	1080	75
Gulf Production	3	E. S. Monahan	1295	150
Gulf Production	6	E. S. Monahan	1300	200
Gulf Production	1	W. M. Easterling-A	1510	Aband.
Gulf Production	15	T. L. Griffin	1205	90
Oil Investment Co	4	Fee	1200	50
Petroleum Producers	5	Bridwell	1140	400
Petroleum Producers	4	E. A. Hausler	1145	125
Petroleum Producers	6	E. A. Hausler	1135	165
Petroleum Producers	7	E. A. Hausler	1150	325
Murchison & Fain and Marland Oil Co	7	Harmel-B	1270	25
Murchison & Fain and Marland Oil Co	12	T. L. Griffin	1305	100
Fred B. Foster & Co	1	Andrews	385	junked
Roxana Petroleum	1	J. H. Blewett	1470	Aband.

Young County—North

Whitehead & Belknap Coal Co	1	Fee	1510	Aband.
Murchison & Fain et al	1	Ben Schlagel	1215	200
Carey et al	1	G. H. Roach	1500	Aband.
900 Oil Co	5	Benson	890	25
Grisham et al	1	Hall	1510	Aband.
Littlefield et al	2	R. Campbell	1180	Aband.
Humble Oil & Refg	1	Campbell	1180	Aband.
Jones et al	1	James Marshall	1305	Aband.
Knight Hines et al	1	Brooks	1000	Aband.
Verschoyle et al	1	Wainscott	1515	Aband.

GENERAL RANGER TERRITORY

Palo Pinto County

Little Caddo Oil Syndicate	1	Fitzgerald	1855	Aband.
Hart et al	1	Smith	2005	Aband.

Eastland County

Knox Lewis Oil Co	1	White	3560	15
Brothers et al	1	Watson	3180	Aband.

Stephens County

Mid Kansas Oil & Gas	3	Hill	3210	100
Magnolia Petroleum	5	McCauley	3954 (dd)	400
Lewis Oil Co	1	Brown	4085 (dd)	25
T. P. Coal & Oil	2	W. J. Gardenshire	2080	100
Hart Oil Corp	6	Hart	3880	Aband.

WEST TEXAS

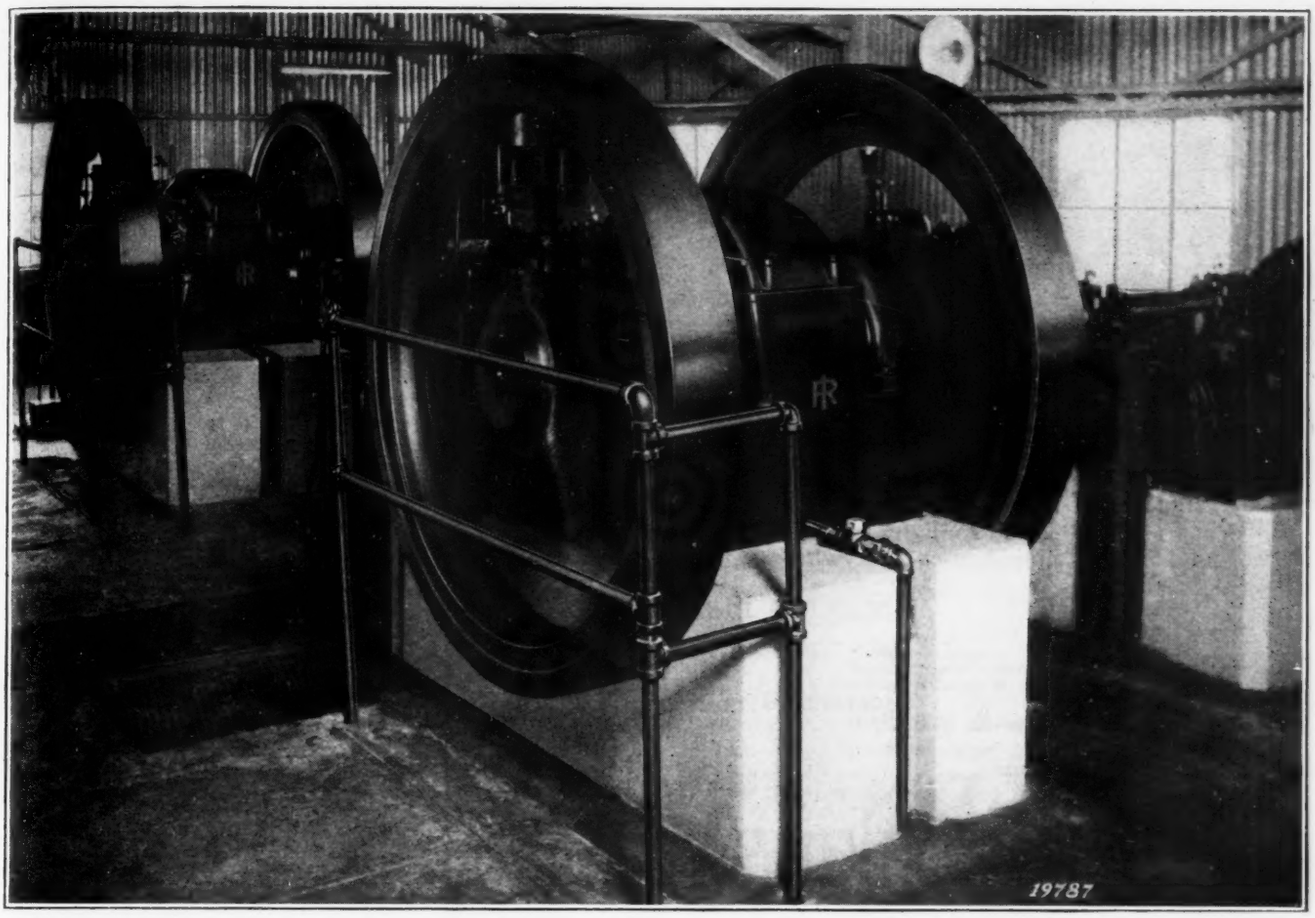
Reagan County

Brandon & McCamey	1	University Sec. 27, Blk 2	3205	Aband.
Mid-Kansas and Transcontinental	1	Hughes-Mason	3397	Aband.
Texon Oil & Land	5	University Group 1	435	junked
Transcontinental Oil Co	1	University Sec.10, Blk 1	3615	Aband.

EAST CENTRAL TEXAS

Wortham

Boyd Oil Co	3	Smith-B	3020	600
Boyd Oil Co	9	Smith-B	3015	2000
Boyd Oil Co	10	Smith-B	3010	2000
Boyd Oil Co	4	Ferguson	3017	1500
Boyd Oil Co	6	Ferguson	3018	600
The Texas Co. (Kirby)	1	Wright, 3 ac	3165	Aband.
Pure Oil Co	2	Crouch	2985	Aband.
Pure Oil Co	3	Crouch	2928	Aband.
Southern Exploration	1	Wright	2975	Aband.
Humble Oil & Refg	4	Lindly-B	2990	100
Humble Oil & Refg	7	Ella Dodd	3025	2000
Humble Oil & Refg	1	Simmons	2985	600
Humble Oil & Refg	5	L. B. Poindexter	3010	300
Simms Oil Co	4	Simmons	2975	200
E. L. Smith Oil Co	1	Keeling	2930	Aband.
Republic Production Co	2	Allmond	3000	400
Whellock & Collins	2	Smith	3000	2200
J. K. Hughes	12	Crouch	3000	600
J. K. Hughes	11	Crouch	2997	450
Mrs. J. K. Hughes	3	Simmons	2985	300
Simms Oil Co	4	Manning	3040	250
Sun Oil Co	6	Simmons	3000	600
Simms Oil Co	5	Hackney	3010	1000
Rio Bravo Oil Co	3	Right of Way	3000	500
L. P. Hammond	1	Hackey	3030	Aband.
L. P. Hammond	2	Hackney	3060	Aband.
Magnolia Petroleum	16	Boyd	3025	500
Magnolia Petroleum	17	Boyd	3025	500



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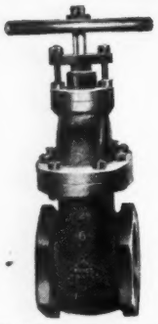

Fig. 325, screwed, Standard Iron Body Gate Valve.

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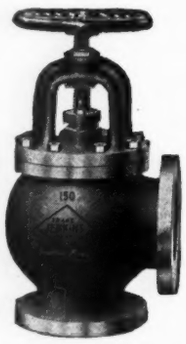

Fig. 144, flanged, Standard Iron Body Angle Valve.

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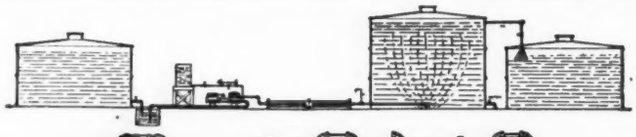

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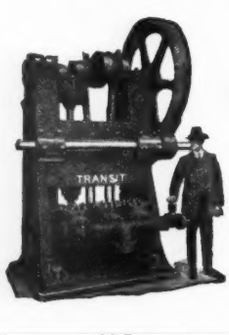
TRANSIT PUMPS



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Rison Will Engage in Consulting Work

TULSA, Feb. 6.—C. O. Rison, who for some time past has been in charge of the Muskogee office of the U. S. Bureau of Mines, has resigned, effective March 15, and will go into consulting work in general petroleum engineering. He will continue to reside in Muskogee. Mr. Rison's work out of the Muskogee office has been of a supervisory nature, watching development of departmental leases in his district. He was closely identified with the development of the Cromwell field, and is now working on a report on that field, which will be published by the Bureau as a technical paper.

Mr. Rison, who formerly was with the Railroad Commission of Texas, gained fame during the early days of the Powell field, when he was in charge of the battle to subdue the burning Hughes-McKie gusher, which took the lives of 15 men. His most noteworthy feat in recent months was in extinguishing a 62 million-foot gas well fire in the north end of Cromwell. This was the Shaffer Oil & Refining Co. No. 1 Little, which burned for 12 days before finally being extinguished and brought under control.

Trying for New Sand in Norphlet Area

EL DORADO, ARK., Feb. 7.—Four very important deep tests are now being made in Secs. 3 and 7 of township 16-15 of the Norphlet area of the Smackover district, where heavy oil production is obtained from the Nacatoch sand at around 2000 feet. In this vicinity, commercial oil production has not yet been developed from the Meekin sand at around 2300 feet, which yields light oil in the western portion of the field, near Louann. However, a few gas wells have been made at this level.

The Lion Oil & Refining Co.'s No. 6 Graves, in the SE¼SW¼ of Sec. 3, is now flowing around 6000 barrels of fluid per day from a total depth of 2500 feet. About 10 per cent this amount, or 600 barrels per day, is 20-gravity oil, the remainder being salt water. The first test in this well was made recently at 2290 feet, where it flowed at the rate of 500 barrels of oil and salt water per day, about 15 per cent being oil. Obviously, with so much open hole, observers find it difficult to estimate the well's value. However, if the oil-bearing sand can be identified, subsequent tests may develop important new production in this area.

The Hickman Oil Co. is preparing to set a string of casing to test a sand cored at 2400 feet in its No. 1 Graves, in the NW¼SE¼ of the same section; and the Houston Oil Co. has set 4½-inch casing at 2272 feet and is fishing for a twist-off at 2277 feet in its No. 1 Milner, in the southwest corner of the SE¼. In Sec. 7 of the same township, the Arkrado Oil Co. is coring in sand

at 2425 feet in its No. 5 Hatfield, located in the northeast corner of the S½-NE¼NE¼.

If one of these current tests should open a new oil reservoir, the great Smackover boom might undergo yet another revival.

It was rumored here this week that a showing of oil had been encountered at a depth of 475 feet in a wildcat well being drilled by Bradley & Cazort in Sec. 16-17-17, Union county, about seven miles southwest of the nearest producing wells in the Louann district of the Smackover Field. However, it was later concluded that this so-called showing had its origin in lubricant used on a roller bit. Drilling has been continued.

Shongaloo Test Cores Oil-Bearing Sand

SHREVEPORT, Feb. 7.—Reports received today from Haynesville state that scouts who visited the Louisiana Oil Refining Co.'s Armor wildcat on the Shongaloo structure, Webster parish, returned with the news that an oil-bearing sand has been cored at a depth of approximately 2787 feet. Casing has not been set, as the crew has been ratholing ahead in search of the Blossom sand. This well is located in 21-23-9, one mile east of the famous Mayfield gasser which sprayed oil, and about four miles southwest of the western edge of the Haynesville Field.

The Humble Oil & Refining Co. is drilling in a well located in the northeast corner of the NW¼ of 26-21-10, which may serve to extend the proven area of the Cotton Valley field. This well is about a half mile south from the dry gassers drilled several months ago near the center of Sec. 23; and is about midway between the oil production in the eastern and southwestern extensions, so-called. It seems to have encountered the top of the sand at a favorable level, being about 30 feet lower than the gas wells located a half mile north. Its successful completion might make the Cotton Valley Field appear in a much more favorable light than at present, as it affords the first test of the southern flank of the structure. The Humble also has set the final string of casing at 2480 feet in its No. 1 Moore, in the NE¼ of 34-21-10, which also will afford an important test of unproven territory, since it is about a mile and a half southeast from the nearest production in 28-21-10.

The Claiborne-Lincoln Syndicate is bailing today to test five feet of sand at a total depth of 2331 feet in its No. 3 Fields, in 22-19-5, one of a series of wildcats drilled by the syndicate near Arcadia, in Claiborne parish.

A. H. Tarver, of Shreveport, has set six-inch casing at 2572 feet in his No. 1 Conley, a very important wildcat operation located in 2-15-10, of De Soto parish, near East Point.

Senator L. V. Ulrey and associates have set six-inch casing at 2890 feet in their Robertson wildcat in 22-11-12, of the Mansfield-Dolet Hills district of De Soto parish.

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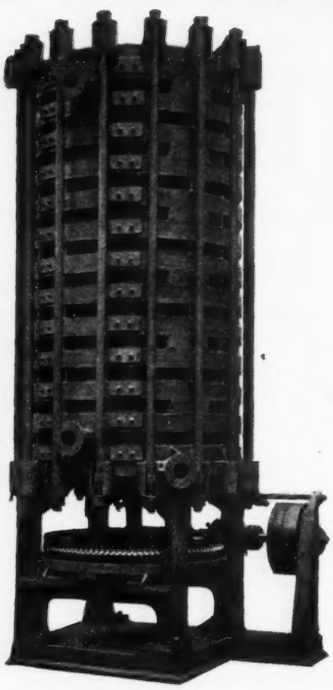
MOORE-BURMAH OIL COOLER



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Patented in the United Kingdom U. S. A., et cetera.

Cooled 1500 Gallons Heavy Oil *and* Paraffin *per* Hour

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P. & C. Fig. 147

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PRATT & CADY VALVES

Big Kentucky Property of Union is Sold

CLEVELAND, O., Feb. 6.—One of the largest sales of oil property made in recent years in eastern fields is that of the Union Gas & Oil Co.'s holdings in eastern Kentucky to a group of Chicago and Kentucky men represented by T. A. Combs, president of the Swiss Oil Corp., Lexington, Ky. and of the Ashland Refining Co., Ashland, Ky.

Identities of those associated with Mr. Combs in the purchase is not revealed but it is understood that some of the Chicago people who helped to form the Swiss Oil Corp. are also present in the acquisition of the Union properties.

The Union property is one that has been much in the public eye for several years. It represents one of the finest unit developments ever seen in the east and has been sought by several companies. The sale will afford mental relief to those who have desired the property but have never been able to get the Union cornered long enough to buy it.

The exact figure at which the deal was closed is not revealed thus far but reports have it that more than $6,000,000 was involved. It is also reported that the property will be under joint management of the sellers and the buyers for the first year.

The Union Gas & Oil Co. is an Indianapolis company with A. B. Ayres, of Fortville, Ind., as president; Frank Millikan, Indianapolis capitalist, as secretary and treasurer and A. C. Albin, vice-president. They are said to have owned all of the stock of the company. The company drilled its first well in the Big Sandy valley 6 years ago. Since then it has drilled 578 wells. There are now approximately 500 producing oil wells, good for around 3000 barrels daily and 70 gas wells. Only 9 dry holes have been drilled. There is considerable undrilled acreage, as the company holds leases on about 17,000 acres, located in Lawrence and Johnson counties, Kentucky, at present served by the Cumberland Pipe Line Co. Production is found in the Weir sand.

Senator Ball of Muncie, Ind., represented the Union in the transaction and the representatives of the buyers were E. Y. Freeman, of Chicago, and E. L. McDonald, Lexington, Ky.

While no announcement has been made as to the disposal of the oil, it is reported that tentative plans have been discussed for a pipe line from the properties to the Ashland Refining Co.

GRANDFIELD, OKLA.—Bell Oil & Gas Co. of Tulsa, has acquired the Grandfield, Okla. plant of the Twin Six Oil & Refining Co. and is preparing to operate it. George A. Sonricker, formerly with the Texhoma Oil & Refining Co. at Wichita Falls, Tex., is superintendent, according to John G. Soder, manager of the Farmers Cooperative Filling Station at Grandfield.

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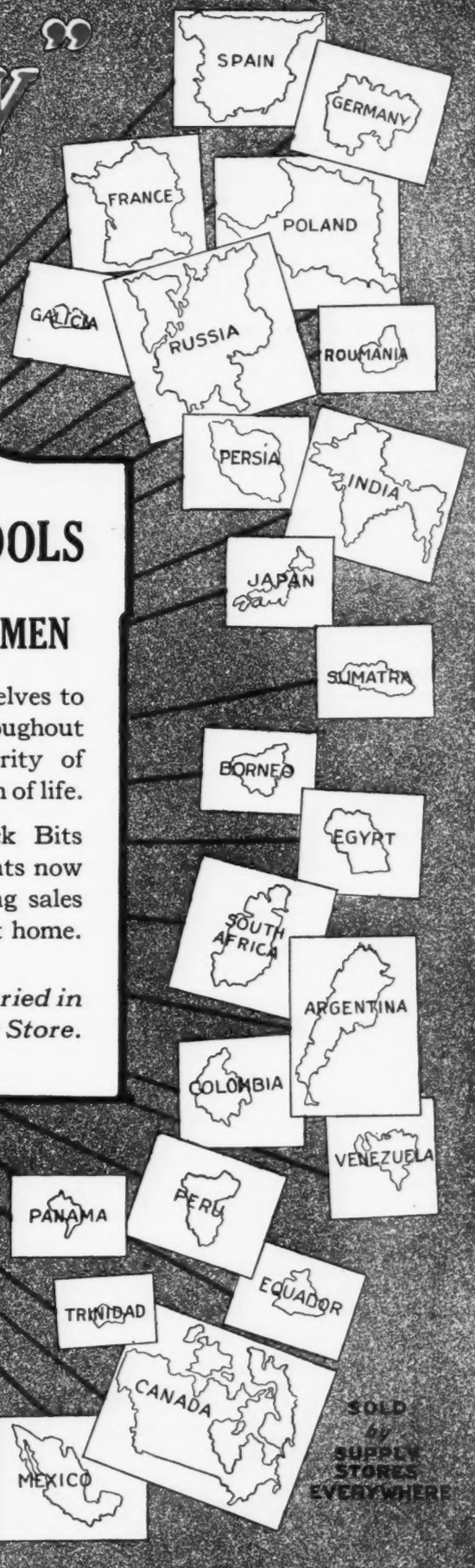

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Sends Out Questionnaire to Get Data on Oil Tank Fires

NEW YORK, Feb., 9.—A comprehensive collection of detailed, specific information about tank fires, their causes, behavior and effects, such as has never existed before, is now being gathered by the sub-committee of the American Petroleum Institute general committee on fire protection. This sub-committee was appointed at the Fort Worth convention to collect this information.

The data are being gathered by means of a questionnaire which is being broadcasted to the industry, asking for specific information. Concerning the sub-committee's activities a statement sent out by the institute says:

"The sub-committee consists of Messrs. Ralph J. Reed, Union Oil Co. of California, Frank A. Epps, Tide Water Oil Co. and H. L. Shoemaker, Standard Oil Co. (New Jersey), chairman.

"As far as possible, every available compilation of tank fire records is being secured; the data therein confirmed and carefully analyzed. Extracts are being made of every tank fire report published by news bureaus and government bureaus. Authentic specific information is being solicited concerning each fire.

"Companies engaged in oil refining, storage, or marketing are being requested to submit reports on every tank fire experienced by them during the last 10 years.

"The fundamental purpose of this investigation is to analyze the conditions under which oil tanks are ignited; to determine the conditions which cause such fires to spread, and to draw the line of reasonable demarkation between what constitutes fire exposure from oil tanks and what does not constitute such exposure.

"Additional data as to the efficacy of fire walls should indicate as to what extent these are of value and what construction is most desirable.

"This is, perhaps, the most comprehensive attempt that has ever been made to obtain a complete and authentic tank fire record. While the specific company data obtained in this investigation will be held in strict confidence by the American Petroleum Institute, the conclusions which will be drawn therefrom will be made available to the oil industry at large, as well as to the arbitration committee which the National Fire Protection Association has appointed for the purpose of developing a table of distances at which oil tanks may be set safely from adjoining properties.

"The arbitration committee above referred to is composed of Messrs. W. E. Mallalieu, representing the National Board of Fire Underwriters, G. S. Lawler, representing the Associated Factory Mutual Fire Insurance Companies, John Kenlon, representing the International Association of fire Chiefs, Col. B. W. Dunn, representing the Bureau of Explosives, and R. W. Boyd, Jr., representing the American Petroleum Institute.

"As it is probable that many of those who read this article may have specific data to contribute, the standard questionnaire which is used to secure this information is shown accompanying. If any readers know of tank fires, the consideration of which may assist this investigation, it will be greatly appreciated if they will report such data to the Sub-Committee on Fire Protection, American Petroleum Institute, 15 West 44 Street, New York City, following the accompanying questionnaire as closely as practicable."

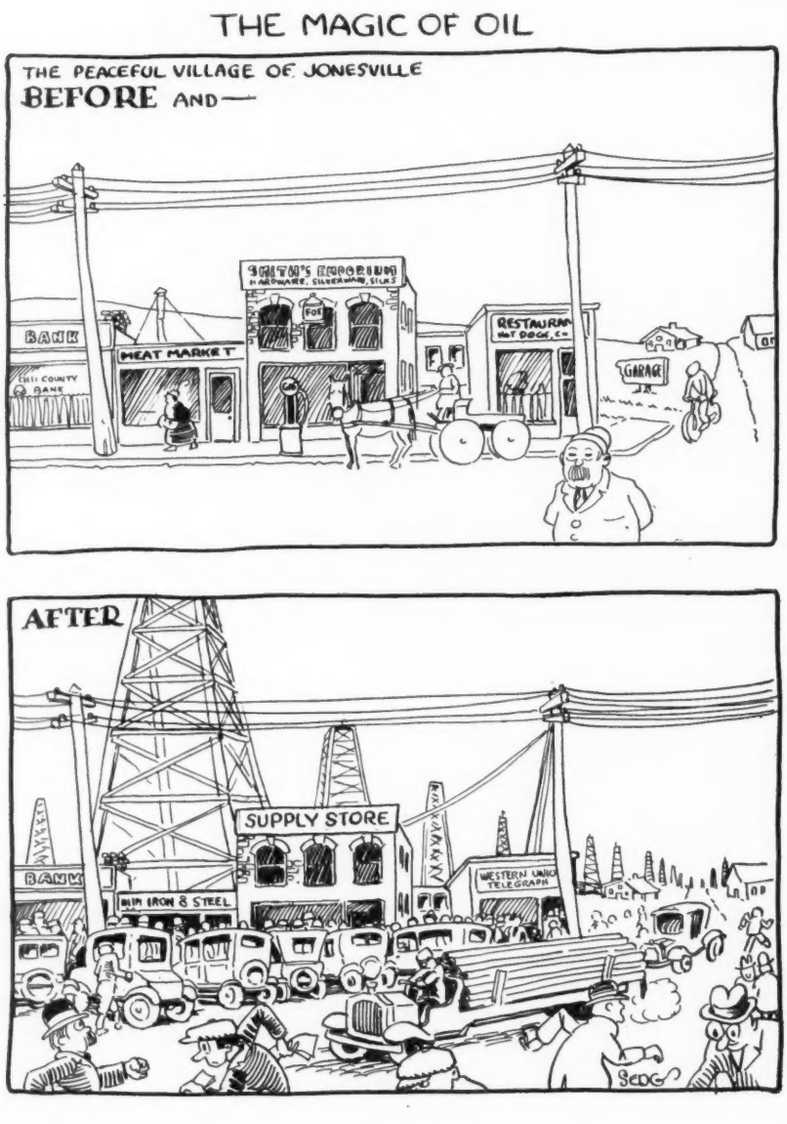
The questionnaire follows:

Report of Fire

1. Name of Company
Date of fire..... 19.....
2. Location of fire
3. Description of Tank (or Tanks)
   (a) Tank Number
   (b) Capacity in bbls. (42's) or gals. (specify which)
   (c) Dimensions
   (d) Roof Construction (for vertical tanks)
   (e) No., type and location of vents
   (f) Gas-tight* or not
   (g) If gas-tight, were all hatches, etc. closed when tank was ignited
   (h) Kind of oil
   (i) Approx. amount of B. S. and water in tank
   (j) Gravity of oil
   (k) Flash point of oil (and method of determination)
   (l) Amount of oil in tank at start
   (m) Was tank pumping-in, or pumping-out when ignited (or neither)
4. Description of Fire Walls or Dykes
   (a) Effective Height
   (b) Approx. diameter (or dimensions if rectangular)
   (c) Made of what
5. Did oil get into fire wall enclosure, or spread beyond tank shell if there were no fire walls
   (a) If, so did it become ignited
   (b) How far from tank shell did burning oil spread
   (c) Did oil go over fire wall
   (d) If so, how far
   (e) Distance to furthest adjoining structures that were ignited
   (f) Distance to nearest adjoining structures that were not ignited
6. Account of fire—Give a brief narrative description of the fire, tell how it started, what were the wind conditions, how the fire spread, what damage was done to adjoining property, and how finally extinguished.

Report made by
Date of Report
Approved by

*NOTE: For the purpose of this investigation a tank may be considered to be of gas-tight construction if it be assumed that practically ALL breathing was passing through the vent opening.



THE EDITORS' VIEWPOINT

Misled by Shadow, Not Substance

ELECTION somewhat simplified the oil industry's problem of public education.

It now appears quite clear that prior to the people voting so overwhelmingly for honor, fair speaking and a square deal to all, the oil industry had been mistaking the noise of a few political liars for the voice of the people. So scared was the industry that instead of smashing these men in the face as one would punish any common garden variety of liars, we argued about ways and means of answering their lies to the public.

The quickest way to settle a liar, is to hammer right back at him as directly and as vigorously as possible. Don't treat him with any consideration for he gives you none. LaFollette, Brookhart, McMasters and Charlie Bryan have all lied knowingly and deliberately about the oil industry. Each lie they told should have been nailed the minute it was spoken and if necessary the public told in just so many words "you lie."

Election showed that liars were relatively few and could easily have been handled by representatives of the industry for each individual lie. Undoubtedly the main reason why LaFollette left the oil industry alone during the last campaign—and it is remarkable but the writer saw no direct reference to the oil industry except where he tied us all up with glittering generalty as part of "the interests"—is because LaFollette was hit fair and square in the face by Secretary Welch of the American Petroleum Institute a year ago in regard to his infamous report on the oil industry.

It will be remembered that LaFollette and his associates on that investigating committee, put many a downright falsehood into that report, falsehoods that were even directly contrary to the testimony the committee had taken. The most glaring, and it was so glaring that instead of considering it just plain error of figuring, one is justified in calling it a downright falsehood, was where LaFollette juggled the government's statistics so as to show that instead of the industry's increasing its stocks, as was the fact, the industry decreased the stocks and at the same time reduced the price, and vice versa. On these juggled stock figures LaFollette scored the industry roundly "for defying the law of supply and demand" in the price action.

Mr. Welch riddled this fabrication and the rest of the report completely, in several public addresses and statements.

LaFollette found in this one experience that the oil industry would fight back hard and would not let him get away with his campaign falsehoods. So he dropped the oil industry and attacked where he thought there would be no fighting back.

The oil industry should have handled all these liars in the same fashion. Then it would have found them backing off over the horizon long before election time, at least so far as oil was concerned.

Election, and this experience, showed two things in the oil industry's public relations:

1.—All liars should be smashed in the face with the facts as quickly and as vigorously as possible. These liars are so relatively few in number, compared with all the voters, that it is easily possible to do this.

2.—The bulk of the public is prepared to give honest and serious consideration to any fair statement of fact and to judge an industry on evidence and not on the noise of a few bolshevists.

Hence the oil industry, in laying out its campaign of public education through its newly organized committee on public relations, can figure on calm presentation of the facts, at the same time it can have a few bombs in store for the first liar who sticks up his head.—W. C. P.

Tell it to Your Stockholders

YOUR stockholders may want to know this year why your profits weren't larger or why you haven't any profits at all.

A bird's eye view of the whole oil situation would help in your answer. You can give it to your stockholders in vivid picture form if you mail them reprints of the Crude Oil Barometer which this paper prints once a month on its front cover. The expense is only nominal, $17 per thousand.

That barometer, as you probably have often noticed, shows the tremendous surplus of crude and petroleum products that has been hanging over the market for the past several years (represented by the red ink area of the graph). You can point to how that red area suddenly narrows to nothing, or to a dab of black in a month or more and tell your stockholders that represents sudden falling off in the production of new pools—pools which came in with big gusher wells and then slid off into wells of 50 barrels, or 10 barrels of oil a day. This shows the uncertainty of the oil industry. This graph also shows the steady increase in consumption from year to year. When checked with current prices, it shows how the oil industry's prices have fluctuated according to whether there was a surplus or shortage on the market.

Another interesting chart would be that on gasoline consumption which would show the same points.

The oil industry, according to rough estimates, must have considerably more than a million stockholders. Each is friendly enough to put his money into the business. Each would be friendly enough to give a moment's thought to your business and the affairs of the whole industry. These stockholders can be turned into first class salesmen for the industry in selling goodwill to the general public, if you, the oil company executives, will only give them some information.

National Petroleum News will be glad to supply reprints of these graphs on quick notice at $17 per thousand, or reprints of any articles that you might wish at moderate cost.—W. C. P.

We all get a good laugh out of the people who set the date for the end of the world; yet what's the difference between that and setting the exact date for the exhaustion of all our oil resources.

Canfield

Tank Line

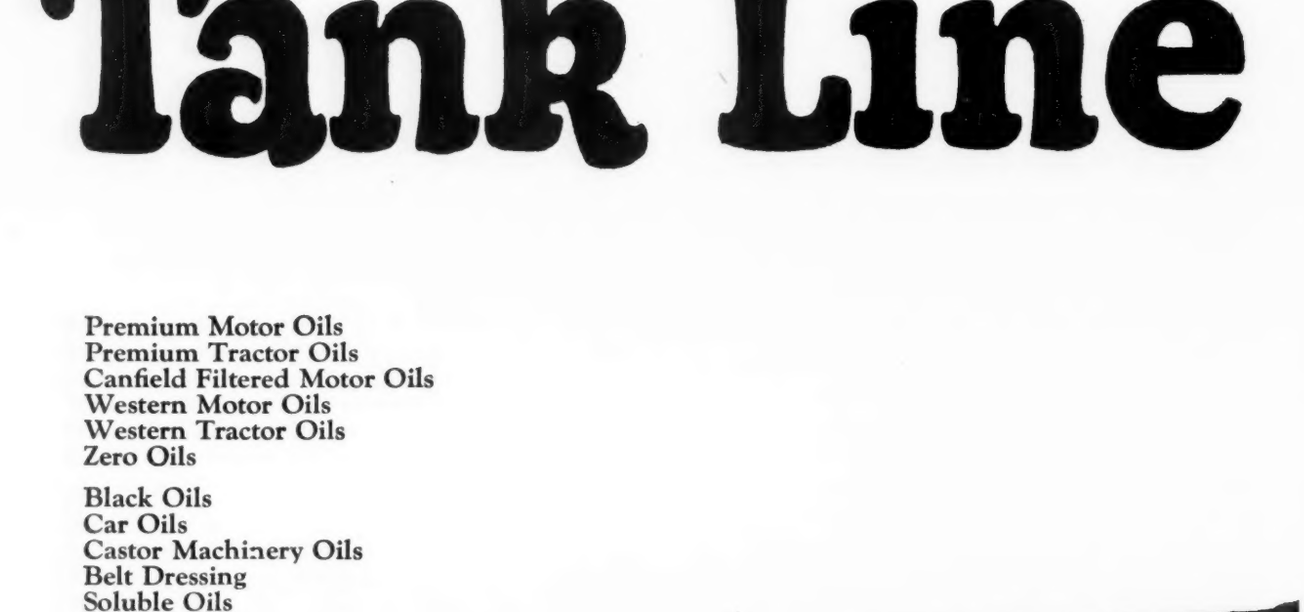
Premium Motor Oils
Premium Tractor Oils
Canfield Filtered Motor Oils
Western Motor Oils
Western Tractor Oils
Zero Oils

Black Oils
Car Oils
Castor Machinery Oils
Belt Dressing
Soluble Oils
Cutting Oils

Viscous Neutrals
Non-Viscous Neutrals
Red Oils
Filtered Cylinder Stocks
Steam Refined Cylinder Stocks

Petrolatums
P. O. C. Gear Compound
Zero Gear Compound
High Pressure Lubricants
Cup Greases
Crank Pin Grease

Graphite Grease
Fibre and Sponge Grease
Gear Shield
Axle Grease
Auto Soap
Mine Car Greases



Consumption of Gasoline Exceeds That of Milk by 4 to 1

By Roger B. Stafford
N. P. N. STAFF WRITER

CLEVELAND, Feb. 3

FOUR times the quantity of milk! That is the volume of gasoline that will be consumed by the American public during 1925. True, both are estimates but a reasonable degree of accuracy may be credited to both.

The gasoline consumption estimate is based on the number of automobile registrations for 1924, a system that has been used in this periodical last year and the year before and which has been found to err only a small amount.

The domestic consumption estimate for this year is 9,260,403,000 gallons. This is 200,000,000 gallons more than the total 1924 gasoline production and imports of motor fuel.

Domestic consumption of gasoline in 1924 according to Bureau of Mines figures, was 7,765,634,741 gallons. This figure is 5.7 per cent lower than the estimate made one year ago in National Petroleum News.

Here's Our Alibi

The difference between our estimate and actual consumption may need some explanation. Alibis are always odious but when one is dealing with such variable factors as the weather, a limited degree of explaining may be permitted.

Weather is the most dominant factor in the rate of gasoline consumption. When the sun shines and winds are warm, great quantities of motor fuel are consumed. When rain and snow fall, winds are cold and roads muddy or icy, only the bravehearts or those who must go of necessity, venture forth in automobiles. Consumption of gasoline slumps a great deal at such a time but not so much as in times past when there were fewer closed cars and hard surface roads.

The first half of 1924 was cold. Scientists said the sun was giving off 4 per cent less heat than was normal. And what layman, shivering from a biting blast, would dispute a reputable scientist?

Consumption Below Normal

Because of the coldness of the spring consumption was considerably below the volume that was generally regarded as normal. Demand began to pick up in May, rose slightly in June and during the latter half of the year was in excess of expectations except in September when cool weather interfered again. But the unusually high rate of gasoline consumption during the remainder of the fall was unable to bring consumption up to the predicted level.

The 9,260,403,000-gallon figure represents gasoline to be used for all purposes within the United States, as motor fuel and in the industrial arts. This volume of consumption is at the annual rate of 80 gallons per capita. The largest distributor of milk in northern Ohio says the consumption of milk averages ¾ pint per person per day, or approximately 20 gallons of milk per person per year, a quarter of the volume of gasoline consumed per person annually. Even considering consumption of milk in the form of butter, cheese and ice cream, the consumption of milk will fall below that of gasoline.

Another Retarding Factor

Business slackness last year also helped to keep down the total consumption of gasoline. Rates of consumption vary with the state of general business, statistics of the Bureau of Mines reveal when analyzed in connection with automobile registration figures.

In 1920 when business was still booming, when labor and farmers had lots of money, and thought they would continue to have indefinitely, consumption of gasoline for all purposes averaged 559 gallons per car on the number of cars registered at the beginning of that year. That means that the actual consumption average was below that figure because the number of automobiles increased during the year.

In the depression year of 1921 the average consumption fell to 491 gallons per car but in 1922 when business began to emerge from the slump of the previous year the consumption average rose to 511 gallons per car. In 1923 business was good; weather was normal, and the average consumption of gasoline rose to 543 gallons per car. Last year with its cold and wet spring and with all business, except the automotive, dull during most of the year, the average consumption fell to 510 gallons per car.

In making this estimate the average of the last five years was taken. This figure was 522 gallons per car.

Increase in Registration

The increase in number of passenger cars and trucks in 1924 over 1923 was 2,517,578, the second greatest numerical increase in the history of the automobile industry. The percentage of increase was 7 points lower than the increase of 1923 over 1922. This increase in registrations in 1924 shows that less than one third of the 3,637,078 cars and trucks manufactured last year represented replacements. In 1923 when the number of automobiles in use increased 2,922,888 over 1922, the output

Table No. 1—Registration of Automobiles by States as of December 31, 1923

State	No. Cars Registered	% Gain Over 1923	Passenger Cars	Trucks
New York	1,400,470	15	1,170,866	229,604
California	1,321,480	20	1,126,956	194,524
Ohio	1,246,000	17	1,086,000	160,000
Pennsylvania	1,228,691	15	1,043,691	185,000
Illinois	1,119,236	15	978,428	140,808
Michigan	856,953	17	774,316	82,637
Texas	801,712	15	738,958	62,754
Massachusetts	672,315	18	580,489	91,826
Indiana	651,705	11	566,736	84,969
Iowa	633,903	10	592,566	41,337
Missouri	547,000	15	493,000	54,000
Wisconsin	525,000	15	475,000	50,000
Minnesota	503,436	12	465,164	38,272
New Jersey	500,000	16	400,000	100,000
Kansas	410,891	9	370,951	39,940
Oklahoma	374,425	22	348,425	26,000
Nebraska	308,715	8	277,447	31,266
North Carolina	305,756	23	278,348	27,408
Washington	294,812	12	251,466	43,346
Virginia	253,582	15	219,950	33,632
Kentucky	229,339	15	206,064	23,275
Florida	221,234	38	187,042	34,192
Connecticut	215,000	20	181,000	34,000
Colorado	212,700	12	196,500	16,200
Maryland	209,804	0.06†	192,668	17,136
Georgia	209,300	20	183,300	26,000
Tennessee	202,962	17	182,349	20,613
Oregon	192,615	15	177,558	15,057
West Virginia	190,134	17	167,963	22,171
Louisiana	178,000	28	150,900	27,100
South Carolina	163,382	27	147,530	15,852
Alabama	157,262	24	138,574	18,688
South Dakota	143,400	9	132,000	11,400
Arkansas	142,307	27	124,807	17,500
Mississippi	135,600	30	122,000	13,660
Maine	124,702	14	105,338	19,364
North Dakota	117,046	7	112,364	4,682
District of Columbia	91,726	12†	81,810	9,916
Rhode Island	89,191	4	73,127	16,064
Montana	79,695	8	69,824	9,871
Utah	79,233	20	69,382	9,851
New Hampshire	71,712	20	64,170	7,542
Idaho	69,211	11	61,586	7,625
Vermont	62,250	18	58,000	4,250
Arizona	57,439	17	49,872	7,567
Wyoming	43,639	9	38,831	4,808
New Mexico	41,750	31	40,350	1,400
Delaware	35,136	17	29,075	6,061
Nevada	18,387	17	14,887	3,500
Total	17,740,236	16.5	15,597,628	2,142,608

†Decline.

of American factories was 4,013,660 cars and trucks. Automobile production figures are those of the Department of Commerce.

The following list of registrations during the last 13 years shows how rapidly the use of motor vehicles has grown in this country:

1912	1,010,399
1913	1,248,056
1914	1,768,963
1915	2,494,912
1916	3,584,567
1917	4,970,671
1918	6,105,588
1919	7,596,503
1920	9,206,141
1921	10,505,630
1922	12,299,770
1923	15,222,658
1924	17,730,236

The registration figures accompanying this article are those completed by Automotive Industries.

Declines in number are shown in Maryland and the District of Columbia. This is because of the elimination of dual registration following the enactment of a 2-cent gasoline tax by Congress for the district. When Maryland had a tax and there was none in the district, cars had to be registered in both the district and in Maryland in all cases where persons lived in Maryland and had their businesses in Washington, or vice versa.

Greatest Increase in Florida

The greatest increase in registration was in Florida where the number increased 38 per cent over 1923. Part of the increased amount may be accounted for by the growth of population because of the state's popularity as a winter resort. Many people also are establishing permanent homes in the state.

The total domestic production of gasoline for 1924 was 8,953,684,385 gallons and imports 134,871,151 gallons, making the total new supply in 1924 9,088,555,536 gallons (See Table 2). This amount is approximately 172,000,000 gallons less than the estimated domestic consumption for 1925. No account is taken of the export trade which, undoubtedly, will be greater than that of 1924 when it reached 1,218,317,310 gallons, as is shown by Table No. 2. This means that the stocks of gasoline which have been regarded as so burdensome during the last two years at present constitute only about two months' supply were the monthly consumption rate unchanged over the year. The stocks at the current rate of consumption are equal to probably three months' supply but considerably less than two months' supply at the summer rate of consumption.

Several factors may work to reduce the actual 1925 consumption figures below the estimate. On the other hand, an exceptionally good business year with a normal amount of good weather may cause actual consumption to be greater than as predicted.

The weather may be the deterring factor just as it was last year. Some scientists say that 1925, 1926 and 1927 will be cold because of the decreased radiation of heat by the sun. Col. Leonard P. Ayres, vice president of the Cleveland Trust Co. and one of the leading business analysts in the United States, in explaining this new weather theory to the Cleveland Chamber of Commerce said:

"Scientists here and abroad are developing a theory which seems to be marvelously well sustained by recorded facts, to the effect that the heat of the sun is taken up by the water of the globe, of the oceans, and then it is transmitted from the oceans to the land with a lag of something like two years. By very carefully measuring the amount of heat radiated by the sun and working in that lag, they can foretell more or less definitely what the weather will be two years ahead. That work, so far as it has been carried out, appears to indicate that the prospects are for an unusually cold latter part of the winter of 1925, and a cool summer in 1925. The forecasts are for even colder seasons in 1926 and 1927."

If this should happen, it is probable that consumption of gasoline may be retarded and the present estimate may be slightly too high, just as it was thrown off its course by the cold spring and September of 1924. We pray for normal weather not only to maintain our own reputation but also for good gasoline business which with the numerous recent price advances looks promising at this time.

Table No. 1 shows the 1924 registration of passenger cars and trucks by states; No. 2 the 1924 gasoline statistics by months, and No. 3 the yearly gasoline statistics since the Bureau of Mines started compiling them.

Table No. 3

Gasoline statistics for last seven years, amounts in gallons

Year	Production	Imports	Domestic Demand	Exports	Stocks Dec. 31
1918	3,570,312,963	12,899,350	3,129,266,347	568,875,816	297,326,983
1919	3,957,857,097	8,520,169	3,434,812,486	382,098,332	446,793,431
1920	4,882,546,699	40,478,107	4,250,696,163	656,740,237	462,381,837
1921	5,153,549,318	37,816,004	4,516,027,256	551,632,771	586,087,132
1922	6,202,234,613	62,132,651	5,372,085,042	594,576,493	883,792,861
1923	7,555,945,143	191,313,540	6,685,035,280	871,116,614	1,074,899,650
1924	8,953,684,385	134,871,151	7,765,634,741	1,218,317,310	1,179,503,185

American Auto Output Off 500,000 in 1924

CLEVELAND, Feb. 6.—Production of American and Canadian automobile factories in 1924 totaled 3,637,078 passenger cars and trucks, according to reports to the United States Chamber of Commerce. Of that amount, American portion was 3,564,096 cars and trucks. In 1923 American production of passenger cars and trucks totaled 4,013,660.

The following table is based on figures received from 166 manufacturers for recent months, 69 making passenger and 113 making trucks (16 making both passenger cars and trucks). Data for earlier months include 56 additional manufacturers now out of business, while December data for 11 small firms were not received in time for inclusion in this report. Figures on truck-production also include fire apparatus, street sweepers and busses:

Passenger Cars

	1922 Total	1923 Total	1924 Total
January ..	81,696	223,822	293,798
February .	109,171	254,782	343,431
March .. .	152,962	319,789	356,976
April	197,224	344,661	346,320
May	232,462	350,460	286,146
June	263,053	337,442	224,965
July	225,103	297,413	244,387
August ...	249,498	314,431	255,073
September	187,711	298,964	263,411
October ..	217,582	335,041	260,839
November	215,362	284,939	204,313
December	208,016	275,472	182,023
Total ..	2,339,840	3,637,216	3,261,682

Trucks

	1922 Total	1923 Total	1924 Total
January	9,599	19,739	30,627
February	13,365	22,178	32,756
March	20,041	35,298	36,270
April	22,675	38,102	37,766
May	24,126	43,757	35,112
June	26,368	41,176	28,884
July	22,086	30,708	26,227
August	24,714	30,884	28,503
September ...	19,497	28,592	31,829
October	21,830	30,153	32,332
November ...	21,972	28,085	27,766
December ...	20,406	27,772	27,324
Total	246,679	376,444	375,396

Table No. 2

	Domestic Production	Imports	Domestic Consumption	†Exports
January	695,322,500	19,309,197	500,420,561	88,823,007
February	677,740,318	5,189,928	396,288,091	103,546,045
March	743,248,292	13,223,836	467,181,088	85,090,057
April	754,773,232	7,627,299	607,175,026	116,941,248
May	779,194,019	14,265,697	672,495,321	96,879,769
June	737,080,701	13,828,926	686,674,204	115,330,959
July	741,974,813	7,553,863	789,666,590	87,797,104
August	755,779,688	16,124,923	819,467,892	112,339,075
September	750,264,418	3,217,278	718,068,623	116,828,935
October	760,646,784	9,113,348	751,499,199	95,492,579
November	762,046,475	11,958,267	695,359,199	97,851,124
December	795,613,195	13,458,589	661,338,947	101,398,308
Totals	8,953,684,385	134,871,151	7,765,634,741	1,218,317,310

Total New Supply 9,088,555,536. Total consumption ,8,983,952,051.

†Includes shipments to Alaska, Hawaii and Porto Rico.

Coal, A Field Invaded by Oil, Making Progress in Regaining Lost Ground

By Lawrence E. Smith,
N.P.N. STAFF WRITER

WASHINGTON, Feb. 6

AFTER petroleum, what?

The question has been raised again and again and answers are usually forthcoming in the columns of newspapers and magazines devoted to pseudo-scientific affairs.

Now and then the question has been propounded by some one who was in the oil business and the answer given him was a shower of verbal brickbats. Whereupon the questioner resumed his occupation of getting more oil out of the ground or selling same and left the business of provision for the future to some other thinker.

The sales efforts of the oil industry have resulted in pushing the utilization of oil into fields which were being served by other sources of power and it requires no mass formation of statistics to show how far the industry has gone. We have only to look about ourselves. Primarily, gasoline has become the moving force of the nation. Steam and electric power generated by coal would have run the automobiles—the beginnings of the automotive industry was in that direction—but gasoline did the work more economically and efficiently.

Natural Gas Saved for Homes

Natural gas cut in on the utilization of coal. That stage has been passed, so far as the eastern industrial section of the United States is concerned. The natural gas men took the subject of conservation into their own hands, aided and advised by governmental bureaus and with considerable impetus added by the urgings of Franklin K. Lane while he was secretary of the interior, and natural gas east of the Mississippi River is confined to the needs of the householder through the means of charging rates too high for industrial use.

One thought that immediately arises in viewing conservation of oil is that a confining of the use of oil to the real primary needs, such as gasoline and lubricants and fuel oil for the navy—where it is deemed necessary because of the greater cruising radius afforded—would result in embarrassment to companies now in the oil business. There is parallel for this in the natural gas business. Some producing companies found themselves with an excess of production because they cut off industrial users. Their continuance in the business over a much longer period was, however, assured.

Oil is competing with coal as fuel, both for power and for heating. It is competing in the field of transportation. We have witnessed the decline of the electric railway industry because of the competition of automobile busses. Scarcely a week passes that some interurban railway line does not either go into a receivership or abandons service on a line that was once profitable.

Relatively little capital is going into new construction of city street railways, either in extensions of lines or construction of new ones in towns that have grown to the stature that requires transportation. Busses are taking the field.

No argument is being made in this article as to the wisdom of restricting the use of oil to certain fields and restoring the use of the other power displaced by petroleum. The attempt here is merely to present some of the background for the action of the president in setting up a conservation board.

Helpful Expressions Few

Time enough has elapsed since that action was taken to have heard some expressions of opinion from oil men, but such as the writer has heard have not been very helpful. Some have shown that serious thinking on the subject has led to bewilderment as to what can be done. A second classification may be made of those who look upon the appointment of the board as "just another one of those things." Still others say the large companies are up to some deviltry.

There has also been some tendency to take issue with the government as to "waste." Unfortunately for the government, the term was not well defined in statements which have been issued. If we accept the views of the engineers in government service who know most about power and resources, the broad view must be taken, however. They are not thinking of oil that runs down the creek—there isn't much of that—but they are thinking primarily of the use of oil in fields which can be served otherwise.

There are resources whose life can be charted fairly definitely. The continuance of a supply of oil cannot. These engineers look upon the matter as they do upon fire insurance. The assumption is that the house will burn, hence they protect themselves against loss. It cannot be proved that oil will last indefinitely—although of the total area of the United States only 4,000,000 acres have been proven for oil and gas—hence, the assumption is by these men that the time will come when there will not be enough.

The next step in their reasoning is that by confining the use of oil to channels that cannot be filled by other sources of power, the life of oil will be greatly extended.

The viewing of other sources begins with coal. It has been possible to explore and ascertain fairly definitely the reserves of the United States. Some figures on this line given by Fred R. Low, past president of the American Society of Mechanical Engineers, before the December, 1924 meeting of that society are to the point.

Coal for 4000 Years

The known supply of anthracite coal which is recoverable is estimated at 11 billion tons, he said. At the present rate of consumption this is good for 100 years. This is used mainly for domestic heating.

Of bituminous and lignite coals there is estimated to be in the United States some 3,500,000,000,000 tons, of which about 60 per cent is recoverable by present methods. We have already used 12,000,000,000 tons.

At the present rate of consumption, the remainder would last some 4000 years, but the rate of consumption has been increasing for the past 25 years at a fairly uniform rate of 18,000,000 tons yearly. If the rate of increase should continue that long, the supply would be used up in less than 500 years.

Offsetting factors are, of course, the improbability that such increase would continue for so long, due to the limit which use of power may encounter and to the better utilization of coal. On this latter point a great deal may be said, for having lost something to the competitive fuel, oil. the coal men are trying to get it back.

In the field of public utility plants, a political factor has been to some extent responsible for the progress made in utilizing coal. Unable to obtain rate increases for utilitizer's service, emphasis was then placed upon reduction in costs in order that a fair profit might be realized from operations. Railways, losing revenue in passenger business because of the increased use of the automobile and the introduction of the automobile bus, turned their attention to better utilization of coal. Writing in Coal Age of Jan. 15, 1925, F. G. Tryon, W. F. McKenney and E. E. Finn, of the U. S Geological Survey, said:

Progress in Coal Burning

".....The results have been remarkable. Progress in the design of fuel-burning equipment has been matched by more care in firing. It is not possible to say just how many tons of coal have been saved in the aggregate, but there are straws which show the direction of the wind. Beehive coking, which wasted 33 per cent of the heat in the coal, has been largely replaced by the by-product process, which recovers all but 10 per cent. Consumption of railroad fuel per 1000 ton miles has fallen notably. In 1913 it took 2433 pounds of coke to make a ton of pig iron,

whereas in 1922 the work was done with 2176 pounds. The coal consumption per kilowatt hour produced by electric utilities dropped from 3.2 pounds in 1919 to 2.4 pounds in 1923, or 25 per cent in five years."

Economies in public utility operations have taken the direction of centralization of power plants; greater boiler capacity. use of greater steam pressures and improvement in methods of combustion.

And these public utility plants are increasing in importance in supplying the need for energy. Small factories and such institutions as the cotton gins in the south, which utilize power only a part of the time, are finding an advantage in going over to electric power supplied from a central plant and thus saving both power plant maintenance and labor cost.

Increased boiler capacity has been another trend in recent years. Formerly, as one authority pointed out, a boiler of 1000 horse power was a marvelous thing and astonished spectators came for miles to see it. Now boilers of 3000 and 3500 horse power attract no especial attention.

Utilization of higher pressures in steam turbines is another gain in creation of electric power. The Commonwealth Edison Co., in its Crawford Avenue plant in Chicago, will operate at 1200 pounds pressure. The general average runs from 200 to 300 pounds with heat efficiency of about 20 per cent and the estimate for the Crawford Avenue plant is that an efficiency of about 30 per cent will be maintained.

Mechanical Firing Aids

Improvement in methods of combustion is reducing costs of operating power plants. Apron-type stokers are in some plants reducing the amount of combustible material left in the ash to two and three per cent, whereas the old familiar form of stoking left 15 to 20 per cent.

With all the improvements that have been effected, in some exceptional instances it has been possible to get plant efficiency up to around 90 per cent while the average for smaller and less expertly designed plants is below 60 per cent. In figuring the high efficiency, the use of exhaust for heating and process work is considered.

Considerable possibility is seen in the mercury turbine invented by W. L. R. Emmet, of the General Electric Co. A limiting factor to steam is that as the temperature of the water increases the addition of heat produces rapidly increasing increments of pressure and at 600° F. the pressure has become over 1500 pounds. The limit to use of the pressure is in the strength of the steel. Emmet's plan is to take mercury, which has a higher boiling point than water and develops less pressure at the higher temperatures, and thus reach a higher level in the utilization of heat without involving the limits of uncontrollable pressures.

The plan, which is to be presently tried by the General Electric in a commercial plant, is to use the mercury turbine in series with steam turbine. That is, in condensing the mercury vapor, the latent heat will be used to generate steam from water. It is expected by this method to develop a horse power hour on about 7500 B. t. u. as against three-fourths horse power hour on 12,000 B. t. u., taking as the basis for comparison, coal used in a boiler of 80 per cent efficiency.

Possibilities not Known

This method, however, does not permit of much discussion yet, for it is not known what the limit to the supply of mercury is nor what losses will be en-

J. Edgar Pew Comments on Conservation Move

WHEN the Federal Oil Conservation Board addresses a number of leading men in the industry, soliciting their expressions as to what the principal problems in the industry are and how conservation can be best effected, National Petroleum News asked the same men to comment publicly upon the points raised by the federal board.

Specifically, there were asked to express their views upon questions 6 and 7. Question 6, of the federal board, referred to estimate as to waste in the industry and question 7 asked for opinions on changes in methods of producing oil, changes in laws governing possessory right in oil and gas to avoid the "present scramble for oil" and invited comment on plans of unit development and unit leasing.

Among the replies received was that of J. Edgar Pew, vice-president of the Sun Oil Co. and president of the American Petroleum Institute. Mr. Pew's letter is as follows:

"I have not made answers to the questionnaires sent out by the President's conservation board. I believe this board is entitled to answers based upon facts only, and not merely upon opinions. The American Petroleum Institute is now making an exhaustive study of all the facts in connection with the oil industry which may have a bearing on the information desired by this board. When these facts are collected, which work cannot be completed in less than six weeks at the earliest, I expect to study them and give my answers as promptly as possible thereafter.

"Answering specifically questions 6 and 7 of the questionnaire is a difficult matter. Under present practices and in view of all the conditions necessarily surrounding the production and handling of oil, I do not believe there is any appreciable avoidable waste. Methods of production, of bringing in wells, of extracting gasoline from the casinghead and from the gas off the tanks, the use of tight roofs on tanks and the present practice of selling the residue gas from these plants to the gas companies, have all been improved during the past two years that we are now having practically no waste from these sources.

"There are brief periods of production in new fields, when the completion of the equipment necessary to prevent some loss is bound to be delayed. But these fields must be developed and oil production started before the additional expenditures are justified.

"It is also true that oil is not always found in localities where its gases can be used to any practical purpose, and where it would be an economic waste to attempt to use the gas, other than for the production of oil and other incidental uses.

"As to question 7, this is answered in part by the preceding paragraph. Better engineering methods, avoiding waste in the production and handling of oil, are being used today than ever before.

"I do not know of any advantage to be gained by any change in the laws governing possessory rights in oil or gas that would benefit business or the oil industry. On the other hand, if such changes in our laws were possible of accomplishment, either constitutionally or with the consent of the people, I can see many reasons why this would be undesirable.

1.— It would tend to stifle competition.

2.— It would tend to kill the initiative of the business.

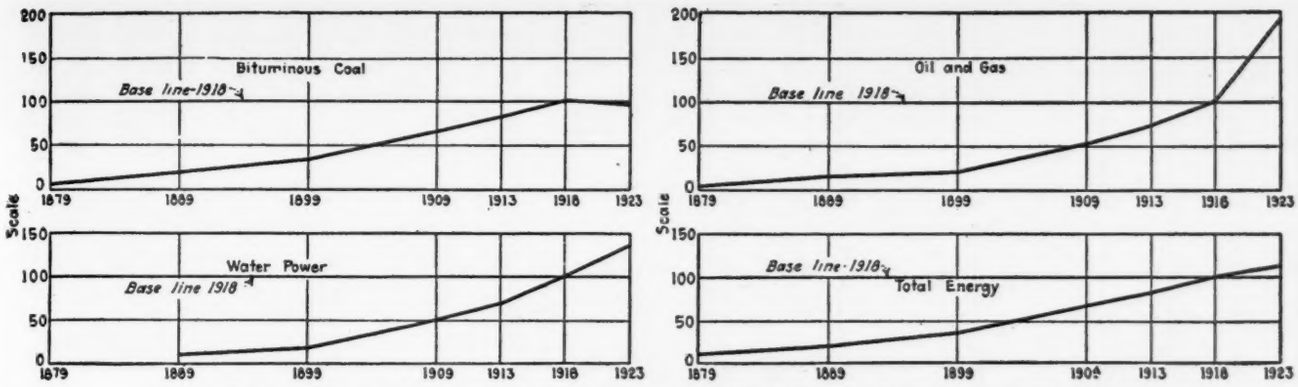
3.— If we are to judge by the experience of the oil industry in the past, it would destroy the greatest factor that has enabled the industry to supply the oil needs—that is, the independent wildcatter.

"I do not think the industry or the country at large would be benefitted by any legislation that would tend to stifle that initiative.

4.— It would tend to eliminate the small producer and refiner.

"The oil industry has done a splendid job in supplying the oil which is to so great a degree responsible for our industrial prosperity. I believe it has been able to accomplish this only because it has been free at all times to work out the many problems peculiar to the industry. Under the stimulus of the hope of large rewards, the prospector has been largely responsible for the finding of most of our oil pools.

"I have endeavored to understand the so-called unit plan of operations, and have very grave doubts that it will in its workings result in producing more oil. It will most certainly result in less drilling and, in many fields in less oil."



Relative Rates of Growth of Bituminous Coal, Oil & Gas, Water Power and Total Energy

The figures are from 1879 to 1923. Oil & gas and water power are enjoying a rapid rise at the expense of coal, especially the former—oil & gas. The total energy has not kept up entirely with the trend of earlier years owing, perhaps, to the greater efficiency in the use of fuel but the figures are not far from what may be regarded as normal. Coal, however, has taken a downward trend. In 1910 the heating value of coal was to the heating value of oil & gas as 3 is to 1. Preliminary estimates indicate that the displacement of coal by oil was even greater in 1924 than in the year preceding.

countered in its use. Special equipment will have to be used, for the smallest leakage runs into money at a rapid rate. Initial installation cost will obviously be much greater than that of steam plants.

Greater development of electric power is, therefore, one way in which the needs for energy is being met. Thus far only coal has been considered. Another development is the utilization of hydro-electric resources.

This subject has been a political football of late. Some of the gentlemen on Capitol Hill, whose minds run along the direction of governmental development of water power so that current can be sold at something they call cost, have made great outcry over the activities of private companies in seeking to develop these resources. The idea is, mainly, that if the hydro resources were only utilized, enough current would be developed to take care of all our requirements for power and what, then, is the use of having a secretary of the treasury if he cannot supply the money to do all this.

The fact is that the water power resources are limited and cannot be expected to displace fuel to any notable extent, considering the growing needs for power. Such resources as there are being developed at a greater rate than is generally realized. During the fiscal year 1924, there were filed with the Federal Power Commission, 87 applications involving an estimated installation of 3,325,000 horse power and 57 permits and licenses were issued with an estimated installation of 1,160,000 horse power.

There were outstanding at the close of the fiscal year 204 permits and licenses aggregating 7,850,000 horse power. Sixty-seven projects with a prospective installation of 2,782,000 horse power were completed. Those figures indicate substantial progress, when compared with the Geological Survey's figure of total developed hydro-electric resources in 1924 of 9,086,958 horse power.

Availability Is Factor

But, in talking of development of these resources, availability is something the congressmen do not consider. The Geological Survey, which has a branch that has been studying the subject for many years, says that with the United States there are 34,818,000 potential horse power from water available 90 per cent of the time and 55,030,000 horse power available only 50 per cent of the time.

That means that such installations must be supplemented with steam stations. Further, there is the question of availability to place where power is needed. It is thus stated by O. C. Merrill, executive secretary of the Federal Power Commission:

"Seventy-two per cent of our water power resources are west of the Mississippi, while 79 per cent of our power requirements are east of that river. In the 11 Northeastern states where our greatest industrial concentration is found, our total water-power resources are less than one-third of the present power demands, exclusive of the railroads."

The rounded view is being taken of this development by the power commission. While hydro-electric resources are limited, with respect to the total power demands, encouragement should be given to the development of what is available, supplementing it with steam stations.

Turning Coal Into Current

Looking at the future from the standpoint of what is being done now, it is apparent that greater utilization of electric power is the program. The proper way to use coal, say the experts, is to create current with it. Mr. Merrill sees electric heating of homes as a possibility—not very near at hand, to be sure, but a stage that can be reached. On the basis of present living costs, homes could be heated at two cents per kilowatt hour. The average rate is now about eight cents. Quite a difference, but a gap that can be closed by greater efficiency in steam stations and in further development of water power.

The question may well be raised as to whether the progress in utilizing coal and developing hydro-electric power will not effect the end that the oil conservation board is aiming at, to-wit; the confining of oil to the channels that it alone can serve.

The view of some government men is that such effect would in time be reached and that oil as steam raising fuel and heating fuel would be driven out, with the generation of more electric power and the production of more fuel gas from coal. They agree with Mr. Teagle's recent statement that the price of coal is a factor in the price of oil, but say that the determination does not stop with price but that better utilization of coal is to be a measure as to the continued use of fuel oil.

Development of the most efficient use of coal and of hydro-electric power to the extent that it would confine petroleum to its consumption as gasoline and lubricant is future, however, and will be a considerable time in the working out. It is to hasten the arrival of that day that the federal oil conservation board is aiming at.

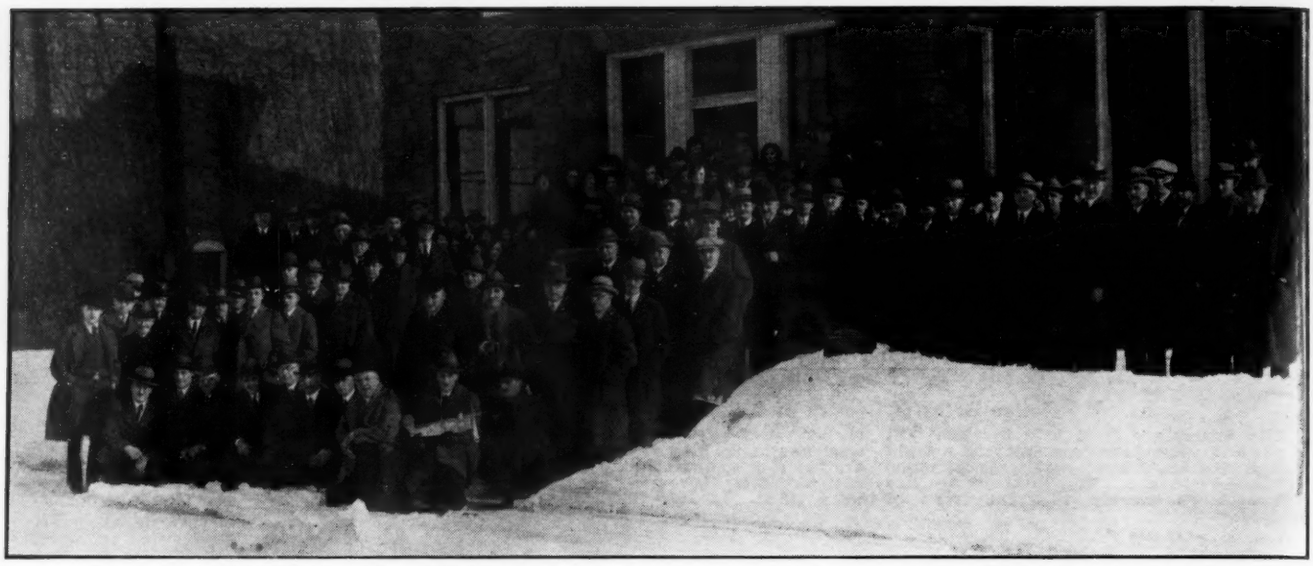
Trading in Archer Co. Properties Brisk

By Special Correspondent

FORT WORTH, Feb. 6.—Half a million dollars changed hands last week, in the sale of three producing properties in Archer county. The Texhoma Oil & Refining Co. paid Lowery and Cavin $250,000 for a 57-acre tract, with five wells and 375 barrels production, in the Swastika Pool. This is the oldest producing pool in south Archer county.

Freeman and Hampton bought the Comet lease of 40 acres on the Ferguson, Freeman-Hampton field, north Archer county, paying $135,000 reported all cash. There are 16 producing wells, with a total of 75 barrels, and 34,000 barrels of crude, in a 37,000-barrel steel storage tank was included in the deal.

The third purchase was by the Petroleum Producers, this company acquiring the interest of J. C. Fastnow in 40 acres out of the Pollei and 60 acres in the Hausler tract, Carey pool, south Archer. The consideration was reported in excess of 100,000. The property has a daily output of 1000 barrels. The Fastnow interest was one-quarter.



Sales and office of the Pennzoil Company attending convention at Oil City office. Photo taken in front of the Pennzoil Building.

Pennzoil Holds Sales Convention at Oil City

OIL CITY, PA., Feb. 6.—A sales convention of the Pennzoil Co., Inc., Buffalo and Oil City, which was held at the Venago club, Oil City, on Jan. 30 and 31, was regarded as one of the most successful the company has held, both from an attendance and educational standpoint. Sales talks helpful to the oil salesman and questions which might come before him were discussed at the meeting by officers of the company. A special car bearing a Pennzoil banner brought the New York state delegation to Oil City, and 115 men in all attended the meeting.

The first day's session opened at 9:30 A. M. with an address by Earl R. Preble, assistant director of sales at Oil City, closed with the showing of the film "The World Struggle for Oil," which was made by the Sinclair Consolidated Oil Corp. in co-operation with the U. S. Bureau of Mines.

A. S. Matthews, vice president and general manager, was chairman. Other speakers on the program, besides Mr. Preble, included: C. L. Suhr, president; Mr. Matthews; J. J. Fox; M. A. Brewster, treasurer of the Oil City branch; H. L. Shamburg, Cleveland, O.; R. L. Cary; W. S. Zehrung, chief chemist; C. M. Dow, Detroit branch; E. C. Connor, Pittsburgh branch; Arthur N. Day, Powers-House Co., Cleveland; Gordon Hargraves, Curtis Publishing Co.

A feature of the afternoon session was the demonstration of sales talk to be employed when trying to convince a hard prospect which was put on by W. H. Fiske and C. H. Curry. A buffet luncheon styled "Come and Get It" on the program was served at 12:30, and dinner at 5:30, during which time the Pennzoil orchestra furnished music.

The "Internal Lubrication Chart" which was substituted for the dinner menu, and bearing the Pennzoil trade mark at the top, plus the words "safe mastication," was compiled by Mr. Cary of the Pennzoil company.

On the folowing day, open house was held at the Pennzoil Oil City offices and refinery, and delegates were conducted through both.

Those attending the convention included:

Mr. Pate, Mr. Trattner, Mr. Cole, Mr. Stebbins, Mr. Fleming and Mr. Baker of the Columbia Refining Co. Cleveland, O.; A. S. Bowser Penn-Mar Petroleum Co., Fort Wayne, Ind.; Mr. Kearns, Connellsville; Mr. Shoemaker, Blue Star Oil & Gas Co., New Kensington; Robert Groff, Berlin; C. L. Varner, Ray Oil & Gas Co., Portage; James Collins, Lexington Oil Co., Lexington, O.; Maurice Brewster, treasurer of the Pennzoil Co., Oil City; C. F. Tuttle, Kingsville, O.; L. D. Hardy, Canton, O.; William Morrison, Pittsburgh; L. Flanigan, Valley Oil & Gas Co., Millhall; Arthur N. Day, Power-House Co., Cleveland, O.; E. C. Breene, Oil City; J. Cuyler Black, Oil City; E. A. Burch, director, Pennzoil Co., Oil City; L. Walz, vice president, the Pennzoil Co.; J. F. Litsey, Elmira, N. Y.; R. J. Murray, Binghamton, N. Y.; H. C. Bird, Auburn, N. Y.; A. C. Beal, Utica, N Y.; W. H. Morrison, Buffalo, N. Y.; Charles B. Kinne, Syracuse, N. Y.; M. J. Forse, Salamanca, N. Y.; Max Winkler, Buffalo, N. Y.; R. J. Orr, Buffalo, N. Y.; D. J. Newbecker, Buffalo, N. Y.; V. C. Murtagh, Syracuse, N. Y.; H. L. Rheiner, Jamestown, N. Y.; A. E. Campbell, Buffalo, N. Y.; R. A. Ludlow, Springfield, Mass.; J. C. Corbett, Syracuse, N. Y.; R. A. Browne, director, the Pennzoil Co., Oil City; A. B. Hogaboom, Elmira, N. Y.; Walter L. Fay, Utica, N. Y.; H. W. Hammon, Buffalo, N. Y.; W. J. Steves, Syracuse, N. Y.; W. H. LaRock, Syracuse, N. Y.; J. T. Brady, Utica, N. Y.; Earl R. Preble, assistant director of sales, Oil City; W. J. Sullivan, Meadville; M. W. Fitzharris, Pittsburgh; H. W. Wilton, Shenandoah Valley, Va.; J. E. O'Brien, Wheeling, W. Va.; W. H. Fiske, Toledo, O.; Charles Curry, Cleveland; H. H. Bortz, Uniontown; H. J. Egley, Canton, O.; C. E. Bortz, Uniontown; Randall Rhoades, E. C. Conner, Pittsburgh; J. O. Chrisman, Pittsburgh; Otto Jagush, Detroit; P. M. Hinkley, Mercer; G. S. Wagner, Detroit; C. M. Dow, Detroit; G. H. Finger, Dayton, O.; C. A. Beskow, Toledo, O.; James Evans, New Castle; Ted Burnett, Mercer; Ralph Cavanaugh, John Courtney, Clearfield; L. A. Grieff, Butler; Howard Shamburg, Cleveland; John Pierce, Harrisburg; H. B. Hoffman, Johnstown; Joseph Brink, Indianapolis, Ind.; W. W. Bosworth, Johnstown; J. J. Devlin, Johnstown; F. T. Johnson, Indianapolis; George Bellinger, Matt Ash, Columbus, O.

Fry Pump Sales Staff Meets at Rochester

ROCHESTER, PA., Feb. 9.—The third annual sales convention of the Guarantee Liquid Measure Co. of this city, manufacturers of Fry visible gasoline pumps, which was held here on Jan. 15 and 16, was attended by nearly 100 sales representatives from all parts of the country.

The Fry sales convention opened with a plant inspection at Rochester, followed by a lunch at the Welcome Club at which Walter F. Zimmer, president of Zimmer-Keller, Inc., Detroit, the firm handling the Guarantee Liquid Measure Co.'s advertising was toastmaster. F. W. Fischer, vice president of the Guarantee company, took charge of the business meeting. On the following day, the business session opened in the William Penn Hotel, Pittsburgh, with William P. Butler, general sales manager, as chairman. W. S. Townsend, president of the company, addressed the meeting during luncheon.

WATERVLIET, MICH.—C. E. Geisler, Coloma, Mich., has taken over the Evans-Wood Motor Sales Co., and its service station of this city, handling Sinclair products. Mr. Geisler will continue the business, and the stations will be supplied by the Watervliet Oil Co., distributor of Sinclair products, reports H. G. Hinckley, secretary and treasurer of the Watervliet company.

KANSAS CITY, MO.—The Independent Lubricating Co., Inc., recently opened offices and warehouse at Kansas City, as its headquarters for distribution in Missouri. H. F. Tuttle is manager.

Oklahoma Industry Fully Regulated by State Commission

By A. F. Hinton
N. P. N. STAFF WRITER

TULSA, Feb. 6

WHEN Oklahoma became a state in 1907, the constitution adopted by the far-seeing delegates of that day did not have a great deal to say about the oil business, which at that time had not become the important factor in the state's economic life into which it has since grown.

True, the Glenn Pool field reached its apex of drilling and peak of production that same year; but the lawmakers of the infant state saw no reason for making any constitutional provision for the regulation of the oil industry by the state, except in the case of pipe lines.

The state did come into contact with the oil business, however, through Article 9 of Section 15 of the constitution, creating a Corporation Commission, endowed with supervisory and regulatory power over corporations doing business in the state. At first this contact was merely through the fact most oil companies were corporations, and hence under jurisdiction of the commission; but it was afterwards widened through legislative acts under which the commission was placed in charge, theoretically at least, of production, transportation, conservation, and sale of oil and gas and their products.

Although saying nothing about production of oil or gas, the constituton did state, "all oil pipe companies shall be subject to the reasonable control and regulation of the Corporation Commission, and shall receive and transport each other's tonnage or oils, or commodities, under such rules and regulations as shall be prescribed by law, or such commission." Judging by the language in which the duties of the commission were outlined in the constitution, it was evidently intended at that time that it should deal primarily with railroads and other common carriers, and "oil pipes" were included under this classification.

Many Laws Since

Since that time, numerous laws have been passed in connection with the oil and gas industry, running all the way from that providing that the state be notified when a well is started, on through the search for oil, its production, storage, sale and transportation as crude, ending up with the state's inspection and tax on gasoline. The refining branch of the industry, apparently, has been entirely overlooked in the multitudinous regulations which have been made law since statehood, probably because its processes have been too technical to admit of supervision of the commission as it has been constituted.

The Oklahoma Corporation Commission is said to be the only state body of its kind in the United States that possesses executive, judicial, and legislative powers. It is vested, within its jurisdiction, with the powers and authority of a court of record, giving it the right to administer oaths, compel attendance of witnesses, punish for contempt, and enforce compliance with its order through assessment of fines or other penalties.

An appeal from its decisions may be taken only before the state Supreme Court, but, when such appeal is taken, no additional evidence may be presented to the court, and the latter is instructed in the constitution, (Sec. 22, Article 9) that "the action of the commission appealed from shall be regarded as prima facie just, reasonable, and correct."

The commission has executive powers in that it may enforce compliance with its orders, even though no law exists in the statutes covering the particular order issued. It is legislative in character in that it writes and prepares laws which are presented to the legislature for passage. It is all-powerful among public utility corporations of whatever character, and has sought steadily to extend its dominion over the oil industry, its chief purpose along this line being in the interest of conservation of the state's oil and gas deposits. In the enforcement of its regulations governing the oil industry it has been only partially successful, as will be brought out later.

Make Up of Commission

The commission is composed of three persons, elected at general elections of state officers, for terms of six years. Their terms do not run concurrently, however, as one commissioner is elected every two years. It was provided in the constitution that the first three commissioners elected should decide by lot which one of their number should serve two years, four years, and six years. The first commission consisted of J. E. Love, chairman, J. J. McAlester, and A. P. Watson. The commission elects its chairman and appoints a secretary.

From 1908 until 1917, regulation of the oil industry was handled by the commission as a whole. Laws had been passed in 1915 prohibiting waste of gas and oil, and the commission had been enforcing these laws through the medium of a conservation officer. In the session laws of 1917, however, the commission was authorized and empowered to establish an oil and gas department under the supervision of the commission, and was authorized to appoint, with approval of the governor, a chief oil and gas conservation agent to have charge of the new department. This department has expanded until it now has 11 dis-

Conservation Long a State Issue

FROM the time Oklahoma became a state it has grappled with some phase of regulation of the oil business there, towards the general end that its underground resources should be developed without undue waste and equitably to the individuals and companies in the business.

It has an all-powerful state corporation commission that has drawn up a complete regulatory code covering pretty much all phases of the oil and gas business.

What regulation here has meant to operators, the industry as a whole, how it is administered, what part politics plays and so on has been studied by Mr. Hinton, of N. P. N. editorial staff at Tulsa. The accompanying is his first article on this subject.—Editor.

trict conservation officers, who are supposed to maintain actual touch with the industry in the field. The oil and gas department also has charge of the gasoline testing, with a chemist in charge at Oklahoma City and a deputy inspector in each county, who collect the gasoline tax and are supposed to make tests of gasoline offered for sale.

Cooperation Lacking

Theoretically, the contact between the oil man and the state authorities should be one marked by complete cooperation, for conservation means as much to one as to the other. The oil producer desires to produce his oil conservatively, save as much of it as possible, and refrain, as far as he is able, from producing it when the market is in a condition of over production. The state is interested in seeing that its natural resources are drawn upon in such a manner as to prevent waste of any kind.

Actually, however, the contact has not been marked by a very great degree of either cooperation or amity. The principal reason for this has been, and still is, that few employes of the Corporation Commission have been so well versed in the art of drilling for and producing oil as to be able to instruct oil men in ways and means of bettering their methods and technique. Also, the oil business of the state has grown so far beyond the physical limits of the commission's personnel that it has found it impossible to enforce its regulations impartially. The conservation officer may visit one well and insist upon the strict observance of all the rules; while, on other wells in the vicinity, infractions are committed with impunity.

The oil companies, whose field operations are directed by men trained for their work through long years of experience, have always resented more or less having to take instructions as to their methods from state officials who did not always possess the knowledge and experience necessary to render them qualified to pass upon drilling problems. The companies themselves have been studying constantly to improve their methods, and of course any improvement in the handling of wells and production is a step toward conservation.

When the oil and gas division of the commission started functioning, it appointed as district conservation officers only men who could qualify as drillers with at least seven years' experience in actual drilling, and it therefore had men in the field whose ability and experience was such as to give them a good standing among drillers and operators.

Politics Takes a Hand

Since that time, however, politics has entered more and more into the appointment of these officers, with the result that experience has counted for less and less, until finally only a rudimentary knowledge of oil field conditions is necessary for the successful applicant. This should not be construed so as to mean that none of the conservation officers are capable of qualifying as a driller; the idea is that the fact that a man is a conservation officer does not necessarily imply he could so qualify.

Few of the commissioners themselves have had any first-hand knowledge of the oil business, and have been content to allow the chief of the oil and gas division to handle that part of their duties which concerned the oil business. It has been his job to formulate the rules and regulations that have been put into effect from time to time, submit them to the commission for approval, and then enforce them to the best of his ability.

One notable exception to the rule of lack of knowledge of the oil business on the part of commissioners was in the case of Art. L. Walker, who was the first conservation officer appointed by the commission—and the only one until the formation of the oil and gas division. When that department was organized, Mr. Walker was placed in charge of it. Subsequently he became a member of the commission and finally was its chairman for several years. He was responsible for most of the regulations governing oil field operations which are now in force.

In issuing new regulations governing the oil industry, the chief of the oil and gas division puts them up to the commissioners for approval. If their sanction is obtained, the regulations are tentatively sent out to the industry and advertisements are placed in two newsppaers, giving the gist of the proposed rules, and setting a date for a hearing at which interested parties may make objections if they so desire. At the conclusion of the hearing, the commission issues its final decision and the regulations then set forth become law. Many of these hearings have been held in building up the oil regulations to their present point, and have been the scene of some determined fights by oil men both for and against the proposed rulings.

Pipe Line Regulations

The earliest attempt on the part of the state to regulate the oil industry was the Yeager-Strain bill, generally known as the common purchaser act, which became a law in 1909. This law requires that any purchaser of crude must "purchase all the petroleum in the vicinity of or which may reasonably be reached by its pipe lines, or gathering branches, without discrimination in favor of one producer or one person as against another, and shall fully perform all the duties of a common purchaser." The law goes on to provide that if the purchaser is unable to purchase and handle all the petroleum produced, then it shall purchase it proratably, in proportion to the average daily production, with no discrimination in favor of its own production, if it has any.

This law grew out of conditions prevalent during the height of the Glenn pool development, when pipe line facilities were utterly inadequate to handle the oil, and the small producer was unable to find a market for his production. In this respect, it has been a boon to the producer, as without it, he would always have been at the mercy of the pipe line companies, who could have taken his oil or not, as they willed.

In 1913 and 1914, when the great Cushing field reached its peak of somethink like 330,000 barrels daily, a similar condition existed. Pipe line facilities were inadequate, wells were being drilled in wholesale, oil went down to practically nothing a barrel, and a general chaotic condition of affairs was bringing about complete demoralization. The Corporation Commission, acting under provisions of the Yeager-Strain bill, ordered that production be prorated so that all producers could have some part of their crude run by the pipe lines.

Prorating Runs

Although there was much opposition to this order, especially among the big companies owning their own pipe line facilities, the producers in the field got together and decided to appoint an umpire, who would pass upon the proration to see that each producer was given equitable treatment. The umpire also was given power to regulate drilling so as to prevent the completion of unnecessary wells. Although appointed by the producers themselves, this action had the sanction of the Corporation Commission, which backed up the authority of the umpire.

James A. Veasey, now counsel for the Carter Oil Co., a veteran of many battles with the commission, brought action in Federal court to restrain both the comission and the umpire from further interefering with operations in the field. This case was not decided, as the commission withdrew its order, possibly fearing that it had exceeded its jurisdiction. The umpire continued to function, however, until the worst of the congestion was over. He was Al. E. Watts, now one of the vice-presidents of the Sinclair Consolidated Oil Corp.

The next test of the commission's authority came about as a result of developments in the Healdton field, which, in 1914 and 1915, got up to around 90,000 or 100,000 barrels a day, with pipe line facilities of less than 10,000 barrels daily. In 1915, before the legislature had passed the law prohibiting and defining waste of oil and gas, and before the formation of the oil and gas division of the commission, Art L. Walker was sent to Healdton to bring about an equitable proration of runs, and to prevent as far as possible, wasting of oil through production in excess of storage and pipe line facilities.

After several hearings, in which groups of operators appeared before the commission both favoring and opposing its action, an order was issued in June, 1915, prohibiting the use of earthen storage and forbidding any op-

erator to take from the potential production of the field "more than his fair and equitable proportion thereof." In order to determine the potential production of the field and to establish a basis for the equitable taking of oil by each operator, the commission's agent was ordered to make a gauge of each oil well in the field, to determine the field's pipe line facilities, or "daily market demand," and to restrict the total output from the field to that figure, with each operator producing only his correct ratio of the total amount.

Regulating Production

After its experience at Cushing at Healdton, the commission decided it had better have more actual law behind it in its campaigns against waste. The state legislature, during the session of 1915, supplied the lack by passing a law prohibiting the production of crude oil or natural gas "in such manner and under such conditions as to constitute waste." The statute went on to define waste by stating that the term should include, in addition to its ordinary meaning, "economic waste, underground waste, surface waste, and waste incident to the production of crude oil in excess of transportation or marketing facilities or reasonable market demands." It gave the Corporation Commission authority to make rules for the prevention of such wastes, and "for the protection of all fresh water strata, and oil and gas bearing strata, encountered in any well drilled for oil."

This statute also gave the commission authority to regulate production in order to assure equitable treatment in the matter of pipe line runs, thus legalizing the steps the commission already had taken in the Glenn Pool, Cushing, Healdton fields. It extended the authority of the commission so as definitely to include the oil and gas industry, "analogous to its control over public service corporations, as now provided by law." It also provided a maximum fine of $5,000 and imprisonment not to exceed 30 days, for violations of the act, in addition to any penalty imposed by the commission.

Following the passage of this act, the commission, on Sept. 1, 1915, issued its Order No. 937, which was its first official code of regulations for conservation of oil and gas. This order was afterward superceded by Order No. 1299, which, although amended and added to since its adoption Aug. 20, 1917, is stil in effect. As at present constituted it consists of 41 rules and two amendments, and covers about every phase of human endeavor in the business of seeking and producing oil and gas. Before promulgation of this order, separate regulations were maintained for oil and gas, but it consolidated the two, so that one set of rules now governs both divisions of the industry.

Complete Code of Rules

After the Healdton experience, and following the passage of the act prohibiting waste, the next test of the commission's authority came in the Blackwell field about 1916, when the Milliken Refining Co. drilled in a well making about 250 barrels of oil and 30 million feet of gas, with the gas blowing off "wide open." The commission notified the company to save the gas or the well would be shut in by the conservation officers. The company contended that the oil and gas were coming from the same sand and that it

Two well-known operators of the Shreveport district. Left, "Bill" Moorefield; right, "Jim" Tippett.

was impossible to shut off the gas without also shutting off the oil.

The commission then proceeded to shut the well in. The company questioned the commission's authority to do this, went into Federal court and attacked the whole conservation act. Its attorneys were Rice & Lyons, of Tusla, a firm well known then and since in oil litigation. The case was held in Oklahoma City before three Federal judges, two of whom held the law constitutional.

The commission claimed that there was a break between the oil sand and the gas sand, and proved it to the satisfaction of the court. They also introduced a gas trap designed by Bureau of Mines engineers, and showed how the gas could have been separated and saved. In spite of the adverse decision, however, the operating company had the last word, for it contended all the time that shutting the well in would probably kill it. The commission denied this, but when the well was finally opened up again it was absolutely dead. Thus the commission was convinced that it had the right to shut in a well, but still was not sure it knew the right way to go about it.

A condition similar to the Blackwell case, although on a much larger scale, came up through development of the Cromwell field the past year. In this instance, gas to the estimated amount of 800 million feet daily was blown off in the air over a long period, because it was coming from the oil sand with no apparent breaks between the oil and gas. The commission shook an admonitory finger at the operators there, but took no definite action, probably fearing the consequences of ordering a complete shutdown of the entire field, which apparently was the only solution.

There is no doubt that there was a deplorable waste of gas at Cromwell, and there was also economic waste when drilling proceeded in the field at a time when no new oil was needed, and in spite of efforts made by some operators to bring about a shutdown. If the commission had had sufficient technical advice, and had been more firmly convinced of its jurisdiction and authority, it might possibly have accomplished a great deal of good in this instance. Instead of that, however, its inaction probably lessened the respect felt for it in the industry.

In one instance, the commission did order a complete shutdown in a field, but this was done at the instance of certain operators themselves, who appeared before the commission complaining that the continued production of oil from the field was an economic waste, in that there was already an overproducton of crude, as evidenced by a rapidly falling market. This was in the Hewitt field, during the latter part of 1920 and the first of 1921. The operators complained that wells were being shot to increase production, and that this, in adition to adding to the flood of oil from the field, was also in some cases, causing damage to the field through shooting of the wells into water.

This led to a hearing at which the commission forbade the shooting of wells except in the presence of a conservation officer, and also prohibited starting of new wells deemed unnecessary by the committee of operators, who were entrusted with the task of carrying out the order. Following the issuance of this order, the Carter Oil Co. was cited for failure to observe its terms, and a considerable fine was assessed—the largest, in fact, that has ever been assessed on an oil company in the state. The Carter appealed to the Supreme Court, but this tribunal never passed on it and the case was finally dismissed.

Usually, by the time cases such as this get to the supreme court and are adjudicated, the emergency that called forth the order in the first place has passed, and apparently the commission is content not to press the matter too far, as it fears an adverse decision, and is still not thoroughly sure of its authority to close down an entire field.

Article 3 of Mr. Wagner's Series on Texas

More Fault Zone Pools to Follow Luling in Edwards Limestone Area

By Paul Wagner
N. P. N. STAFF WRITER

THE Edwards limestone division of the Balcones fault zone has less precedent for an appraisal of its future than the Woodbine sand belt, which lies immediately to the northeast.

Only the Luling field, in Caldwell county, exists as commercial evidence of oil production in the Edwards limestone geological province. Northeasterly through Limestone, Freestone and Navarro counties, the Woodbine sand belt is productive at Mexia, Wortham, Currie, Richland and Powell.

Luling is roughly 75 miles on an airline, in a southwesterly direction, from Kosse, in southern Limestone county. It is approximately at the latterly mentioned point that the Woodbine sand belt is considered to end and the Edwards limestone province becomes the objective of the oil drill in the fault zone.

The presence of petroleum in the Edwards formation at Kosse was shown, August 18, 1922, when the Humphreys Oil Co. completed a well at 3760 feet that started off making about 5000 barrels daily.

After the Humphreys well had produced a total of 48,000 barrels, it stopped flowing; and all efforts to put it back on production failed. Further test drilling in all directions from the well, which was located on the Jones land, about a mile and a half north of Kosse, gave no productive results.

A thin lense of sand found in the Jones well at approximately the 3200 foot level gave no indications of oil production. That sand is believed to represent the pinching out of the Woodbine to the southwest from the area of its normal thickness, at and northeast of Mexia.

* * * * * * *

THE Kosse well did one thing for the petroleum industry if it accomplished nothing else. That was to establish, in connection with the development of the Luling field, another guide post for future exploratory work.

Subsidiary faulting of the type influencing oil production in the Mexia-Powell region is known to extend southwesterly from Kosse to Luling, and beyond the latter. The subsidiary faulting reflects minor fractures associated with the earth movement that originally resulted in the major Balcones displacement.

Because of the fact that conditions are very similar in both the Edwards limestone area and the Woodbine sand belt, it may be assumed on the basis of present evidence that there is little difference in the mechanics of oil accumulation in the two divisions.

The differences that exist have to do with the stratigraphic levels of accumulation and possibly with the original source of the oil. The Edwards limestone is considerably lower in the stratigraphic column than the Woodbine sand; also, the Edwards is the time equivalent of the highly productive Tamasopa limestone of Mexico. The Edwards is productive in the Luling field at about 2200 feet and in the one well at Kosse it was productive at 3760 feet.

Faulting that is subsidiary to the Balcones fracturing is known to extend beyond Luling, southwesterly, in the direction of San Antonio; and probably in a more westerly direction to the Rio Grande boundary with Mexico, down the river from Del Rio.

From Kosse to San Antonio, the airline distance is approximately 170 miles. Beyond San Antonio, in a westerly direction, it is about 135 miles to the Rio Grande. Fully 200 miles of this area contains potential narrow pools of the faulted "shoestring" type.

It will be necessary to locate these pools under conditions of prospecting that are similar to the practice that made Powell and Wortham possible after Mexia.

Correlation of dry hole data for the purpose of establishing sub-surface information will play its part in the future of this long narrow area. Surface evidence of faulting, often obscure and frequently inconclusive, will be utilized to its workable extent. More satisfactory results will come, however, from the sub-surface work made possible by the careful keeping of dry hole records.

A limiting factor to be encountered in the Edwards limestone division will be, of course, the porosity of the formation that is the principal objective of the oil operator. The character of limestone production, as regards the quantity of oil available, is entirely dependent upon the porosity of the container.

Even though structural conditions are otherwise satisfactory, a lack of porosity in the limestone would result in the failure of test drilling to bring about productive results. A "soft" spot in the limestone, under favorable structural conditions, might be expected to yield prolific returns. In cases of unusual porosity, the oil flow would be proportionately greater.

It is conceivable, although there exists at this time no evidence upon which to base such a conclusion, that highly porous spots in the Edwards limestone area might produce "gusher" wells of the type familiar to the follower of Mexico's oil.

The faulting with which production is associated in the Edwards limestone area does not compare with the large throw proportions of the fracturing in the Tamasopa, which provided the structural influence for the south fields of Mexico. But, the question is asked, does it necessarily follow that similar large-throw faulting is required to produce that kind of accumulation, provided that the porosity of the formation is sufficiently great.

Sign Posts of Development

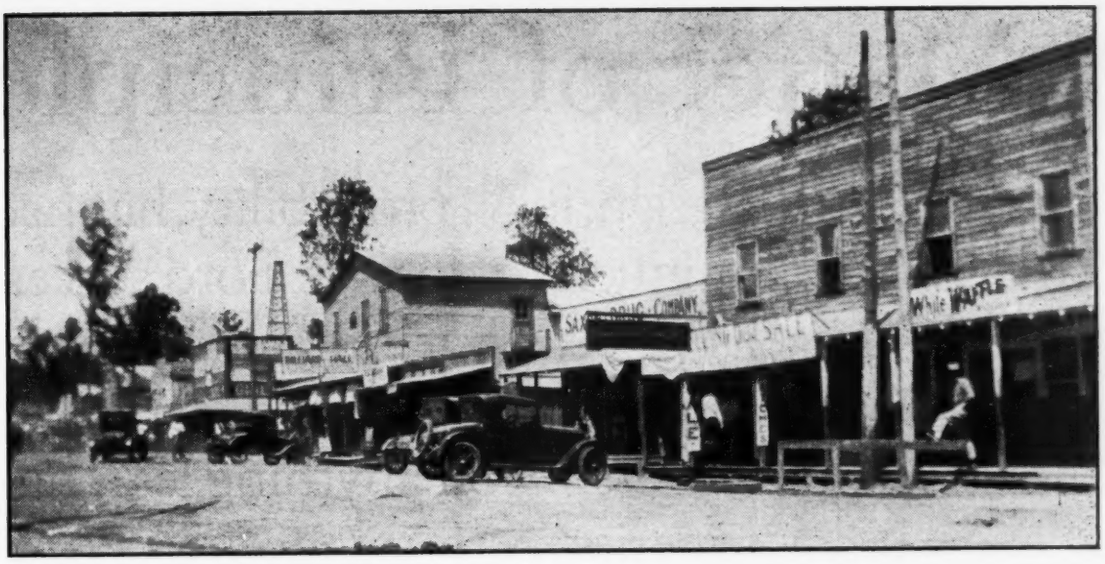
West of Kosse, near the Limestone-Falls county line, a significant test now under way is that of Harrison and others on the Preston land. It is being watched closely because of its general proximity to the old Humphreys well on the Jones.

Formations have been reported encouraging in the Preston test and there were shows of gas at the higher stratigraphic levels. A thin sand was found at about 3200 feet, probably the Woodbine, and the drill is now going ahead around 3300 feet.

Whether this test proves successful or not, the presence of a fault zone pool somewhere in the area is believed to have been indicated by the flashy Jones well. Eventually prospecting may be expected still farther southwest along the Falls-Robertson county boundary, near Bremond, where past tests were unsuccessful.

Following this same general trend down through Milam county, a number of dry holes have been drilled the last few years. There was a test by A. L. Guiberson, Jr., of Los Angeles, on the Posey Farm structure, south of Little River; and a few miles east of the Guiberson failure, the Sinclair Oil & Gas Co. recently got a dry one on the Smith-Turney structure.

Faulting has been traced at the surface from a point near the southwest end of the Sinclair block, in the direction of Rockdale, and the Pure Oil Co. is one of the largest leaseholders in this prospective area. Others owning protection acreage include the Southern Exploration Co., the Gulf Production Co.,



Louann, one of the field towns of the Smackover district, came into its day of excitement after Smackover town had had its boom. Above, principal street of Louann

The Texas Co., and a number of smaller operators.

It is of passing interest that the shallow Rockdale-Minerva pool, and other scattered production is located to the westward of the prospective deep pay area in Milam county. This production, which is found at depths of less than 1000 feet in every instance, is located with regard to fault line conditions similarly as the Corsicana district shallow developments were located with reference to the deeper Powell pay.

The shallow oil in Milam county, is generally placed in the Navarro-Taylor zone of Cretaceous age. The wells generally pump about 2 barrels daily in the Tracey field, where the oil is found from 175 to 400 feet in depth.

Shallow oil in this area has been exploited in a small way for years, but has no broad economic significance. Whether it is important in relation to deeper deposits elsewhere in the county is a question. The fact remains, however, that this shallow oil does exist; also, that the deposits are located similarly as the shallow oil at Corsicana is located with regard to being west of the faulting that controls the accumulation of petroleum at the deeper level at Powell.

Thrall and Its Peculiarities

On the east line of Williamson county, which adjoins Milam on the west, the Thrall field has been producing a shallow oil since 1914. The present production is negligible and amounts to only a few hundred barrels, at most.

When Thrall first came in a few of the wells exceeded 1000 barrels, initial daily production, but soon dropped off. A number of the wells produced several hundred barrels daily.

Thrall was temporarily a sensation, but soon fizzled. Later testing in the territory failed to develop anything of economic importance to the industry.

An almost unheard of condition exists at Thrall, where the oil is found in an ash associated with a volcanic plug. Needless to say, the petroleum deposit found lodgment in this formation after migrating from the original source rock. The circumstances are, of course, more interesting than they are important.

Following the hypothetical line of faulting across the western Lee and Bastrop counties, an area of more extensive "wildcatting" is reached. Bastrop county adjoins Caldwell, in which the Luling field is located, on the northeast.

Surface evidence of faulting has been mapped in Bastrop county and a number of unsuccessful tests drilled. This exploratory work followed the bringing in and development of the Luling field.

Most of the larger companies operating in Texas hold acreage in Bastrop county and a number of them have put down test holes. Among others to drill unsucessful tests was the Dixie Oil Co., a field operating subsidiary of the Standard Oil Co. (Indiana.)

Shallow Wells Near Elgin

In the extreme western part of Bastrop county, a few shallow wells exist in what is known as the Elgin field. This field has never been of commercial importance and it is not certain that its presence is especially indicative of other possible development. Bastrop county, however, is in much the same relative position to Luling that the Powell and Wortham fields were to Mexia at the time the latter was the single producing pool in the Woodbine sand belt.

It is possible that an extension of production may be made in a northeasterly direction from Luling, in Caldwell county. In a southwesterly direction, Luling was extended across the San Marcos river into Gaudalupe county at the time of the fields greatest flush development.

Efforts to find another pool southwest of Luling, in Guadalupe county, resulted in a number of unsuccessful "wildcats" being drilled to the east and southeast of Seguin; also as far afield as the Bexar and Wilson county boundaries with Guadalupe county.

Wilson County Watched

One of the latest tests to be watched in Wilson county, which is south of Guadalupe is the Rosalie Oil Co.'s No. 1 Deming, in the C. W. Parrot survey, three and a half miles north of the town of Stockdale. This test was reported reaming at 1933 feet after drilling to total depth of 2033 feet.

The last three hundred feet of formation encountered in the Deming test was gumbo with streaks of shale, carrying oil. Because of this showing and because of the quantity of gumbo in the test, this "wildcat" is being closely watched for the possibility of encountering a sand under this formation. The Deming test is located on a well defined fault.

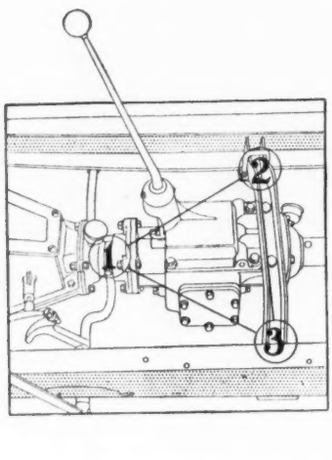
Further interest in Wilson county has followed the taking over by the Humble Oil & Refining Co. of the Roxana Petroleum Corp's. holdings, totalling about 8200 acres, and consisting of parts of the S. & S. Arocha, Joseph Reynolds, Mendiola and Moseley surveys.

Faulting Observed At Somerset

A reconnaissance westward from the Wilson county juncture with Bexar and Atascosa counties would carry the traveler through the shallow Somerset pool, south and southwest of San Antonio. It is probable that faulting subsidiary to the Balcones fracture exists there, as surface evidences of disturbances have been observed.

Deep drilling in the Somerset area has not resulted in production of oil to date. The district has not been sufficiently explored, however, to discount its possibilities of deep oil from the

A Matter of Principle



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Edwards formation. The Edwards underlies the area at approximately the same drilling depth as it is found at Luling.

The Somerset development, which term is used to include all oil produced in the shallow area of Bexar and Atascosa counties, has resulted in the total recovery of less than 2 million barrels to date. The small wells, which generally produce from 2 to 4 barrels daily, and which come in for initial productions around 15 barrels, are now averaging about 4300 barrels total daily for the district.

Structures Farther West

Structures that may or may not have been influenced by the major Balcones faulting are known to exist in Medina, Uvalde and Zavalla counties. Their possibilities are yet to be shown, but it is significant that the Sun Oil Co., several years ago, got important gas production in a test well drilled in the central northern part of Zavalla county.

In Uvalde county, an important industrial operation is the mining of rock asphalt from beds that reach the surface in the vicinity immediately east of the Anacacho mountains. This rock asphalt, which contains as high as 20 per cent of bituminous content, is marketed far and wide as a street paving material.

Two companies are engaged in mining this rock asphalt, the Texas Rock Asphalt Co., and the Uvalde Rock Asphalt Co. The deposits worked by these companies are located within a few miles of each other. Still other deposits are known but are not worked.

One of these companies has carried on its work extensively, blasting the material into rock fragments for grinding and transferring it to the mills via steam shovels and trams. The other company has operated less extensively.

These rock asphalt deposits are important to the oil industry mainly because they indicate the migration of light petroleum fractions to the surface, where they have escaped. The bitumen remaining in the rocks as asphaltic material is construed to represent the heavier residue fractions.

Whether structural features, down the south-southeast dip of the bedding planes, are responsible for the trapping of lighter oil deposits in this region will have to be shown by drilling. It is conceivable that such deposits exist, either from anticlinal or faulted conditions that are not necessarily indicated at the surface.

A further question exists as to whether such deposits, granting they exist, are to be found in the beds from which the lighter fractions have escaped in the asphalt mine region or whether they will be "discovered" at lower stratigraphic levels.

Area of "Vast Open Spaces"

This part of Texas is a general region of great distances, and forms one of the "vast open spaces" for which the state is noted. The surface is covered by greasewood and mesquite, except

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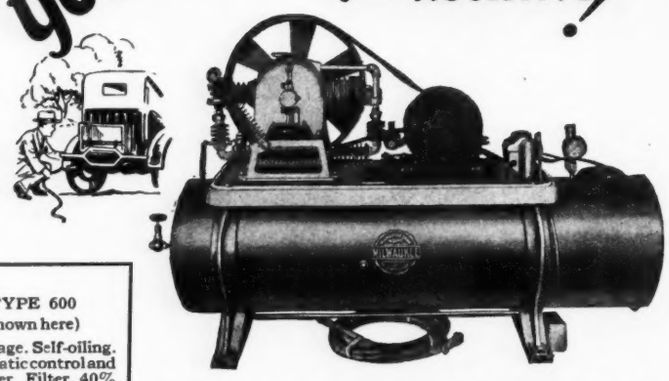

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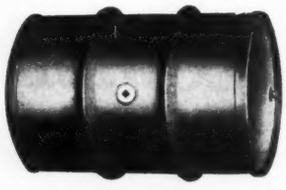

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for grazing its utilization is limited and transportation is a factor that will continue to retard "wildcatting."

The type of country comes under the general classification that has been given to many regions where petroleum is found—"it ought to be oil country, it isn't good for anything else." In many respects the conditions are dissimilar, but in this regard there will be little question raised as to the similarity of the Uvalde-Zavalla region in comparison with others.

It is intended here to discuss only the oil possibilities of a narow strip within, and along the coastward-dipping rim of the Black Prairie physiographic province of Texas. Along this narrow strip, fault zone possibilities are definitely recognized for the Woodbine sand belt to the northward from southern Limestone county; and Edwards limestone production is seen for additional pools in a southwesterly direction past San Antonio from Kosse, under similar conditions of faulting.

Beyond San Antonio, the question of faulted or anticlinal conditions obtaining becomes less clear as to which. In general, however, this northwestern part of the Interior Coastal Plain is not without its possibilities.

Beds Dip Toward Coast

The coastward dipping beds that come to the surface, or near it, in the East Texas division of the Interior Plain, attain great depths in relatively short distances. The result is that much of the territory east and southeast of the Woodbine sand development of Texas would require testing to undrillable depths to obtain production from horizons that are known to produce oil closer to the outcrops.

In the region south and west of San Antonio, the productive formations do not attain such depths as quickly; therefore, exploratory work has greater possibilities from known oil horizons farther back toward the center of the Interior Coastal Plain.

The fact that certain changes in bedding exist at drillable depths in this region, as compared with the first mentioned, may also allow for other possibilities than production from the Edwards limestone. Tests below 4000 feet in the Luling field have, however, failed to develop production in the Lower Cretaceous.

NEW LEXINGTON, O.—C. B. Shaeffer, Independent jobber and retail dealer of gasoline and oils in this city, has just completed a drive-in service station, a 50,000 gallon capacity storage plant at Crooksville, O., and another service station at Roseville, O. This additional storage will give Mr. Shaeffer a total capacity of 125,000 gallons for gasoline and 10,000 gallons for lubricating oil in Perry county. He operates about 40 pumps and handles Royal Blue products.

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Boston	Dayton	Montreal	Toledo
Bridgeport	Detroit	Newark	Toronto
Buffalo			Tulsa

HERE AND THERE

HARRY S. Hayden, who was a factor in organizing the Fred R. Peck Oil Co., Syracuse, N. Y. two years ago and who has served as its general manager, has resigned that position to become general sales manager of the Pennsylvania Oil Products Refining Co., Warren, Pa. Mr. Hayden has also been elected vice president of the Eldred Refining Co., New York City, the sales outlet for the Pennsylvania company, which operates service stations at Rochester, Auburn, Oswego, Rome, Moravia and Wallington. M. F. Cowden is president of the Pennsylvania and Eldred companies.

Mr. Hayden is an experienced oil man, having been district manager of the lubricating stations at Syracuse, New York City and Philadelphia for the Crew-Levick Co., and later being promoted to supervisor of all lubricating stations.

The Pennsylvania Oil Products Refining Co. is one of the large Independent refineries in the Warren district, and refines exclusively Bradford amber crude, having connections to over 2,000 wells in these fields.

* * *

J. B. Michaels, district superintendent at Rexburg, Ida., for the Continental Oil Co., announces the arrival of a 10-pound son at his home.

In regard to weather conditions in his territory, Mr. Michaels reports that the upper Snake River Valley has been covered with two feet of snow and automobile traffic has been completely tied up for the past 60 days.

* * *

Glenn F. Strickler of the export department of the Sinclair Refining Co., New York City, visited the Pennsylvania refiners at Warren and Oil City recently and also Cleveland, O., during the week of Jan. 26, reports Charles A. S. Keeley, agent for The Texas Co., at Cleveland.

* * *

Roger R. Beardsley, president of Beardsley & Murphy, Inc., Batavia, N. Y., distributors of Pennzoil products, married Miss Eleanor W. Page on Feb. 2. Mr. and Mrs. Beardsley left for a trip to New York City and Bermuda.

* * *

Elliott Jones and W. B. Pape, of Elliott Jones & Co., Inc., San Antonio, Tex., attended the recnt meeting of the Texas Independent Oil Men's Association at Austin, Tex. Mr. Jones is a director of the association.

* * *

George C. Pohler, purchasing agent for the Cosden companies, has been appointed a member of the program committee to assist in preparing the program for the annual convention of the National Association of Purchasing Agents to be held in Milwaukee next May.

Harry S. Hayden

A. R. Ketcham, Jr., who was with the Standard Oil Co. of California a year ago handling district advertising and sales promotion in Seattle, Wash., is now engaged in sales work with The Texas Co. at Philadelphia, Pa. Mr. Ketcham recently married Miss Margaret Lincoln of Germantown, Pa.

* * *

A. Roy Allison, who was recently made sales manager of the Stevens Grease & Oil Co., Cleveland, O., announces the appointment of W. H. Breckenridge as manager of the company's Chicago offices. C. W. Beck is assistant to Mr. Allison at Cleveland.

* * *

F. S. Leonet, formerly sales representative in the Chicago division of the Vacuum Oil Co., has entered the jobbing business in Chicago, handling lubricating oils and greases exclusively.

* * *

C. F. Bowen, chief geologist, Standard Oil Co. of New Jersey, who has been making a trip through the Mid-Continent field returned to his headquarters in New York by way of Houston.

* * *

John Hancock, president of John Hancock Oil Co. and Yale Oil Corp. of America, Minneapolis, is spending January and February in California, reports Perry C. Sanborn, secretary of the Yale company.

Grafton Houston, of the Chicago offices of the Johnson Oil & Refining Co., was recently at San Antonio renewing acquaintances. Mr. Houston, being a native of Texas, can't stay away and be happy, is the conclusion of W. W. Pew, manager of the Magnolia Petroleum Co., San Antonio.

* * *

H. M. Stanton, for two years warehouse foreman of the Cities Service Oil Co., at Denver, Colo., has resigned and returned to Texas. F. S. Henry, formerly service station attendant, succeeds Mr. Stanton, according to T. B. Hancock, of the Denver offices of the Cities Service.

* * *

R. P. Bixler, president of the Elkhart Oil Co. marketer of Marland oils, says that his company has put on another two-ton 500 gallon capacity tank wagon, making three tank wagons in operation now. Mr. Bixler reports business as being good.

* * *

E. S. Smith and G. E. Smith have just organized the Alamo Petroleum Co., Travis Bldg., San Antonio, Tex., for the purpose of marketing fuel oil, kerosene and other petroleum products. The new company is soliciting inquiries for quotations.

* * *

C. Max Bauer, geologist for the Midwest Refining Co., and in charge of that company's operations in Montana, spent Christmas in the east, and attended the meeting of the Geological Society of America at Ithaca, N. Y.

* * *

J. Leslie Barneson, vice president of the General Petroleum Corp., Los Angeles, Cal., has been appointed assistant manager of sales in charge of export and fuel oil sales, according to B. E. Hannon, lubricating engineer of the company.

* * *

J. B. Jarrett, formerly sales representative of the Standard Oil Co. of Indiana at East St. Louis, has left that company to become factory representative for the Williams Oil-O-Matic Heat Corp., covering eastern Ohio and West Virginia.

* * *

Henry Max, owner of the Craig Oil Refining Co., St. Paul, Minn., is on the road to recovery after suffering for over three years from a dislocation of the spine, according to J. F. Giefer, an employe of the Craig company.

* * *

Sir James Currie, president of the British Mexican Petroleum Co. and the Lago-Petroleum Co., arrived recently on the Mauretania from England.

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Mexico's Exports Off 8 Million Barrels For Whole of 1924

HOUSTON, Feb. 6.—Exports of petroleum from the Tampico district totaled roundly 8 million barrels less in 1924 than they did in 1923, according to customs figures now available for the two years. Exports in December, 1924, totaled 11,433,476 barrels as compared with 11,203,997 barrels in November and 9,909,619 barrels in the preceding January.

For the entire year of 1924 the total volume of oil exported from the Tampico district of Mexico was 137,048,229 barrels; in 1923, the total was 145,082,686 barrels.

Figures are not obtainable to show in detail the quantities of Mexican light oil and products exported as against fuel grade movement. The height of heavy oil production in 1924, however, was around 315,000 barrels daily, last April, compared with roundly 240,000 barrels in December. Mexican light oil production in December averaged about 125,000 barrels daily as compared with 100,000 barrels in the middle of the year and as high as 140,000 barrels in the early part of 1924.

Exports From Tampico District

Company	November 1924	December 1924	Total 1924	Total 1923
Transcontinental Pet. Co. (Standard of New Jersey)	3,102,006	2,480,241	30,328,052	18,090,716
Huasteca Pet. Co. (E. L. Doheny Interests)	2,246,215	2,581,965	29,005,524	31,938,059
Mexican Eagle Oil Co. (El Aguila)	1,559,695	1,834,957	13,925,187	17,997,334
International Pet. Co. (John Hayes Hammond)	324,345	119,624	2,213,659	3,226,237
Cia. Mexicana-Holandesa "La Corona"	1,301,827	1,604,360	16,991,942	22,934,594
Mexican Gulf Oil Co.	357,421	489,428	10,530,358	7,796,354
The Texas Co. of Mexico	181,992	282,063	3,158,173	9,123,807
Sinclair Mexican Cos.	1,081,232	1,159,794	14,342,507	11,507,123
East Coast Oil Co. of Mexico (Southern Pacific)	229,036	212,505	5,022,745	7,882,765
Cias. del Agwi, S. A.	.....	.....	1,104,299	3,122,749
New England Fuel Co. (Magnolia Pet.)	101,036	60,379	1,989,020	3,427,769
Pierce Oil Corporation	30,843	.....	682,438	929,632
Interocean Pet. Co.	37,199	45,033	722,926	1,025,514
Chaddick & Co.	.....	.....	557,014	1,072,675
Panuco-Boston Oil Co.	57,534	169,337	913,920	516,371
Empire Gas & Fuel Co.	184,168	185,100	3,295,608	1,980,437
Mexican Atlas Oil Co.	171,670	134,067	755,484	27,810
Continental Mex Pet. Co.	.....	.....	66,351	184,587
Producers Export Corp.	.....	.....	28,287	.....
Island Oil & Transport Co.	69,909	74,623	678,238	868,660
Penn-Mex Fuel Co.	167,869	.....	475,407	.....
Unity Petroleum Co.	.....	.....	162,476	.....
Tamaulipas Oil Co.	.....	.....	98,614	.....
Cortez-La Atlantica (Atlantic Refining)	.....	.....	.....	549,530
National Petroleum Co.	.....	.....	.....	273,977
U. S. Mex Oil Corp.	.....	.....	.....	606,006
Totals	11,203,997	11,433,476	137,048,229	145,082,686

Deepwater to Install More Process Units

HOUSTON, Feb. 6.—Deepwater Oil Refineries, Inc., operating a plant on the Houston ship channel, announces its expansion program for the year 1925 will include the installation of three new units, consisting of a total of six stills, condensers, receiving tanks, pumps, storage tanks, etc., for the purpose of manufacturing their "New Process" lubricating oils.

Bids have been asked for these materials, according to F. L. Rogers of the sales department, and it is anticipated construction work will begin shortly.

Mr. Rogers says this new installation will increase the capacity for Deepwater's "New Process" oils by 300 per cent. This company's entire output on these oils, he says, was completely sold within 45 days after being placed on the market. Since that time, no further business has been solicited on these particular materials.

In addition to the installation of the process units mentioned, Mr. Rogers says that Deepwater contemplates erection of additional agitators, wash towers and storage to take care of increased demand on regular lines of pale and red oils.

The Deepwater has been making extensive foreign sales Mr. Rogers reporting that in 1924 this company exported about 40 per cent of the lubricants it manufactured and 90 per cent of all its gas oil.

Virginia Companies Consolidate

PETERSBURG, VA., Feb. 6.—The Capitol Oil Co., Inc., distributor of Texaco products, and the Virginia Oil & Supply Co. consolidated Jan. 1 and are doing business under the name of the Capitol Oil Co., Inc., with headquarters at Petersburg.

The company operates wholesale plants at Petersburg, Hopewell, Wakefield, Blackstone, Milford, Mineral, Culpeper, Fork Union, Warrenton and Boydton, all in Virginia, and at White Sulphur Springs, W. Va.

Officers and directors of the two companies continue to serve with the new company, and include: D. H. Jackson, president; W. J. Barton, vice president and manager; B. P. Beall, vice president and assistant manager; H. E. Jackson, vice president and superintendent of equipment; and G. R. Barksdale, secretary and treasurer.

Oil Trademarks For Copyright

THE following are trade-mark applications pertinent to our field pending in the United States Patent office which have been passed for publication and are in line for early registration unless opposition is filed promptly. For further information address NATIONAL TRADE-MARK COMPANY, Barrister Building, Washington, D. C., trade-mark specialists.

As an additional service feature to its readers, this journal gladly offers to them an advance search free of charge on any mark they may contemplate adopting or registering. You may communicate with the Editor of this Department, or send your inquiry direct to the NATIONAL TRADE-MARK COMPANY, stating that you are a reader of this journal.

Ser. No. 202,805. (Class 23. Cutlery, Machinery, and Tools, and Parts Thereof.) The Grease Spot, Inc., Philadelphia, Pa. Filed Sept. 20, 1924.

Particular description of goods.—Lubricating Apparatus and Parts Thereof.

Claims use since about July 15, 1924.

—o—

Ser. No. 203,660. (Class 15. Oils and Greases.) American Mineral Spirits Co., Chicago, Ill. Filed Oct. 10, 1924.

The words "Motor" and "Oil" are disclaimed apart from the mark shown in the drawing.

Particular description of goods.—Motor Oils Which are Lubricating Oils and Gasoline.

Claims use since Sept. 1, 1923.

—o—

Ser. No. 186,662. (Class 4. Abrasive, Detergent and Polishing Materials.) Miner-Edgar Company, New York, N. Y. Filed Oct. 6, 1923.

Particular description of goods.—Compounds of Oils and Other Solvents with Nitrated Cotton, Used in Dressing Leather.

Claims use since on or about Oct. 1, 1914.

—o—

Ser. No. 200,340. (Class 1. Raw or Partly-Prepared Materials.) The Reinbold Metallurgical Company, Omaha, Neb. Filed July 21, 1924.

Particular description of goods.—Oil-Refining Clays for Refining and Bleaching Petroleum Oil.

Claims use since April 7, 1924.

Ser. No. 204,099. (Class 15. Oils and Greases.) Kant-Rust Products Corporation, Rahway, N. J. Filed Oct. 18, 1924.

Particular description of goods.—Lubricant and Corrosion-Preventing Paste.

Claims use since April, 1924.

—o—

Ser. No. 197,932. (Class 15. Oils and Greases.) Gripite Company, Chicago, Ill. Filed June 2, 1924.

No claim is made to the lining, which indicates red color on the drawing. Trade-mark "Gripite."

Particular description of goods.—Spring Lubricants.

Claims use since Apr 1, 1924.

—o—

Ser. No. 203,888. (Class 6. Chemicals, Medicines, and Pharmaceutical Preparations.) H. A. Metz & Co., Inc., New York, N. Y. Filed Oct. 15, 1924.

Particular description of goods.—Dyestuffs.

Claims use since about Sept. 26, 1924.

—o—

Ser. No. 204,629. (Class 15. Oils and Greases.) G. Whitfield Richards, Philadelphia, Pa. Filed Oct. 30, 1924.

Particular description of goods.—Cutting Oils and Motor Oils.

Claims use since about March, 1918.

Ser. No. 199,914. (Class 15. Oils and Greases.) White Star Oil Company, Philadelphia, Pa. Filed July 11, 1924.

Particular description of goods. — Lubricating Oil, Stock Blend Oil, Cylinder Stock Oil, Viscous Neutral Oil, Nonviscous Neutral Oil, Black Oil, Green Lubricants, Cup Grease, Axle Grease, Pitch Grease, Set Grease, Cable Grease, Gear Grease, Roll Grease, Sundry Grease, Transmission Grease, Fiber Grease, Translucent Red Grease, Cutting Lubricants, Soluble Oil, Gasoline, Naphtha, Kerosene, Illuminating Oil, Road Oil, Fuel Oil, Black Fuel Oil, Gas Oil, Tallow and Tallow Compounds, Refined Paraffin Wax, and Castor Oil for Lubricating and Industrial Purposes.

Claims use since June 1, 1924.

—o—

Ser. No. 201,726. (Class 15. Oils and Greases.) Standard Oil Company of New York, New York, N. Y. Filed Aug. 21, 1924.

No claim is made to the word "Benzine" apart from the mark shown.

Particular description of goods.—Benzine.

Claims use since 1885.

Ser. No. 201,065. (Class 15. Oils and Greases.) Waverly Oil Works Company, Pittsburgh, Pa. Filed Aug. 6, 1924.

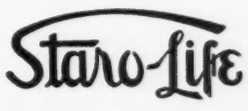
The word "Cut" is disclaimed apart from the mark as shown by the drawing.

Particular description of goods.—Lubricants for Metal Cutting tools.

Claims use since about Apr. 1, 1924.

328 O.G.—19.

—o—



Ser. No. 202,653. (Class 15. Oils and Greases.) White Star Refining Company, Detroit, Mich. Filed Sept. 15, 1924.

Particular description of goods.—Combined Cleanser and Lubricant for Internal-Combustion Engines.

Claims use since about July 1, 1924.

—o—

Ser. No. 185,241. (Class 4. Abrasive, Detergent and Polishing Materials.) Cantol Wax Company, Bloomington, Ind. Filed Sept. 1, 1923.

The drawing is lined to indicate the color blue.

Particular description of goods.—Belt Dressing, and Wax Impregnating Compound for Fabrics and Belts —Namely, Waterproofing, Preserving and Filling Compounds in the Nature of a Belt Dressing.

Claims use since March, 1921.

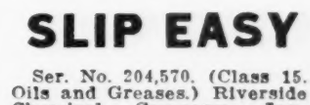
—o—

Ser. No. 202,356. (Class 15. Oils and Greases.) Protane Corporation, Erie Pa. Filed Sept. 8, 1924.

Particular description of goods.—Liquid Hydrocarbon Fuel Obtained from Casing-Head Gas.

Claims use since Aug. 1, 1924.

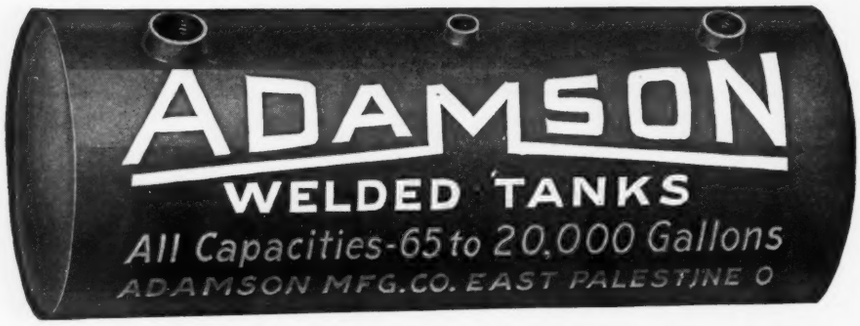
—o—



Ser. No. 204,570. (Class 15. Oils and Greases.) Riverside Chemical Company, Inc., North Tonawanda, N. Y. Filed Oct. 29, 1924.

Particular description of goods.—Lubricating Oils and Greases.

Claims use since about January, 1906.



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GAS OILS
PARAFFINE WAX
ASPHALT

Fuel Oil--Lubricating Oils

CYLINDER ENGINE
CORDAGE

RED AND PALE PARAFFINE OILS

Wainwright Activity Feature Of 1924

OTTAWA, CANADA, Feb. 5.—The bringing in of No. 4 British Petroleum, Limited, well in Alberta, is considered by far the most significant feature of drilling in the Wainwright-Irma oil and gas area during the year 1924, according to G. S. Hume, of the Canadian Geological Survey. Of the No. 4 B. P. well, Mr. Hume has the following to say:

"After drilling through the cement plug which cemented in the eight inch casing and cut off 'top' waters, the well was bailed for about twelve hours, when oil began to come in quantity. The oil rose steadily and rather rapidly for such heavy oil in the eight-inch casing to within about 50 feet of the top of the well, thus giving slightly less than 2000 feet of oil in the well.

"A two-inch flow line was then placed in the well and the eight-inch casing was closed at the top. The pressure rose to over 300 pounds and oil accompanied by gas flowed in a continuous stream through the flow line into a large pit that had been excavated previously.

"No estimate of the amount of oil this well will produce can be made until it is tested by the pump which British Petroleums have now secured. At the writer's last visit to this well on October 14 it was still flowing, but the flow had decreased considerably from the initial flow. To get the maximum results it will be necessary to pump the well and a test is expected very shortly when the real capacity will become known."

Of the 14 wells started in this area, Mr. Hume accredits oil, gas with oil showings, or gas and oil to five of them. These are B. P. No. 2, drilled in 1923, in which he states there is oil; B. P. No. 4, drilled in 1924, already described in detail; Maple Leaf No. 1, drilled in 1924, gas with oil showing; Imperial (Fabyan) No. 1 drilled in 1921-22-23, gas and oil, and B. P. No. 1, drilled in 1922-23, gas and oil showings.

Of the other wells, he makes the following comment in a summary: Imperial No. 2, 1923, none; B. P. No. 3, 1924, not complete; B. P. No. 5, derrick erected; Maple Leaf No. 2, derrick erected; Western Consolidated, 1924, drilling; Wainwright Producers Syndicate, 1924, drilling; British Wainwright, derrick erected; Irma Oil Holdings, drilling; Gratton No. 1, 1914-15, gas.

Referring to B. P. No. 3, Mr. Hume states that the tests were disappointing as the well failed to come in when bailed and only showings of oil were obtained. He adds that the well has been deepened since, but no statement has been made to him. Much gas and little oil is said by Mr. Hume to have been encountered in the Imperial (Fabyan) No. 1 well, but the Maple Leaf appears to be situated in a more likely spot of that area.

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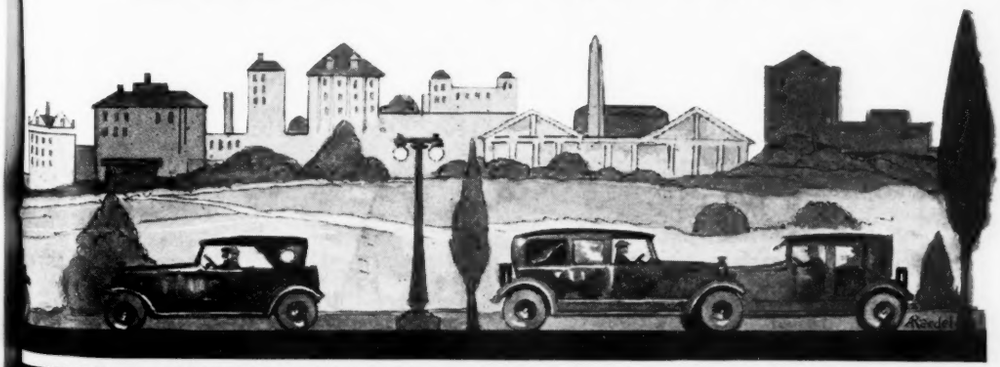

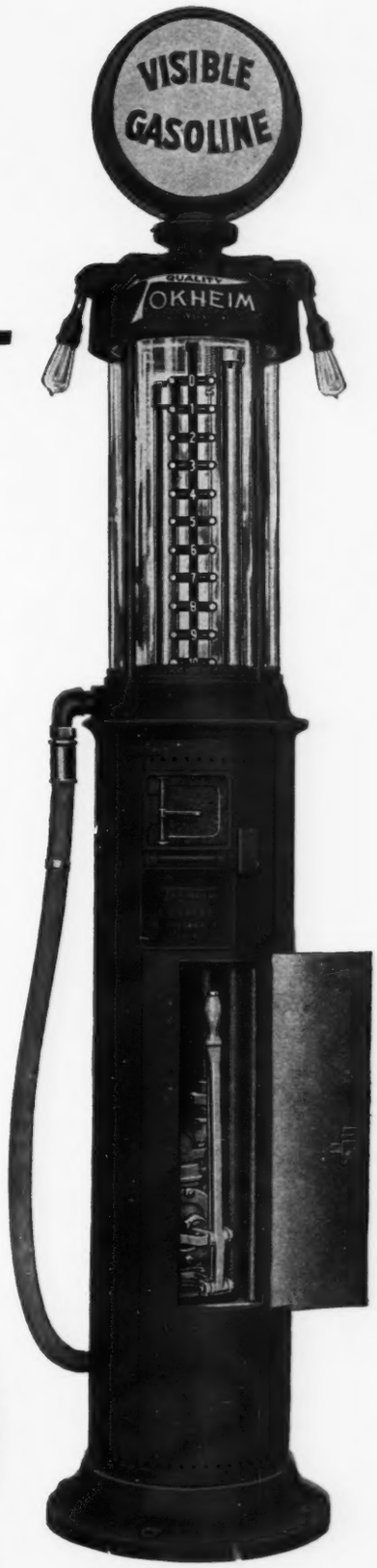

No. 280--10 Gallon Hand Operated

Oil Patents Issued In December

Refining

To Reclaim by Burning Out Oil

No. 1,520,831. Dec. 30, 1924. Almer M. McAfee, Port Arthur, Tex., for method of recovering aluminum chloride. Class 23, sub-class 13. Filed March 1, 1923. Assigned to Gulf Refining Co. Nine claims.

To recover aluminum chloride from exhausted sludges, the same are heated under conditions permitting access to air and ignition of oil vapors until the contained oil is removed in whole or in part and thereafter continuing the heating in the absence of air.

Another Aluminum Chloride Patent

No. 1,520,080. Dec. 23, 1924, George L. Prichard and Herbert Henderson, Port Arthur, Tex., for recovering aluminum chloride, filed March 10, 1922. Assigned to Gulf Refining Co. Four claims. Class 23; sub-class 13.

In recovering aluminum chloride from oil sludges containing the same the sludge is heated as a thin layer on the surface of a hot liquid immiscible therewith such as molten lead to volatilize the aluminum chloride.

To Regenerate Fuller's Earth

No. 1,520,493. Dec. 23, 1924. Robert E. Wilson, Chicago, for revivifying Fuller's earth, class 252; sub-class 2. Filed May 19, 1924. Assigned to Standard Oil Co. of Indiana. Two claims.

To revive fuller's earth this invention comprises initiating local combustion in one part of a bed of spent fuller's earth, causing the combustion to progress therethrough by forcing air into the bed of fuller's earth at the point where combustion is begun, and admixing with said air an inert gas such as flue gas in conjunction with the oxygen containing gas employed for combustion of the organic matter in the earth to control the temperature obtained in the combustion of the fuller's earth.

Patent On Accessible Towers

No. 1,518,555. Dec. 9, 1924, E. C. Blaisdell, Kansas City, Mo., for cracking apparatus, class 196; sub-class 139, filed May 20, 1924. Two claims.

To provide a cracking apparatus in which one or more sections may be cut out for repairs this apparatus comprises a plurality of towers connected in series, valved connections between said towers whereby one or more of said towers may be cut out of the system, a chamber in the lower portion of each tower, a baffle suspended in said chamber, a pipe leading from the upper portion of each chamber and located above the lower end of the baffle for conducting fluids to the succeeding tower, means for externally cooling said towers whereby certain fractions may be condensed, and means in top of each tower for withdrawing the uncondensed vapors.

An Improved Dephlegmator

No. 1,519,719. December 16, 1924, David Charles Brandon, Balikpapan, Borneo, Dutch East Indies, for dephlegmator. Class 196; sub-class 139, filed July 19, 1922. Six claims.

An improved dephlegmator comprises a vertical column having a vapor inlet at its lower end and a vapor outlet at its upper end, superposed cooling compartments arranged in said column and each having a group of superposed horizontally arranged tubes, means for introducing a cooling fluid into and discharging said fluid from said tubes, a combined vapor and condensate chamber arranged between said cooling compartments, the lower end of each cooling compartment being open to permit vapors rising in the column to contact with said tubes in their vertical movement and condensation formed by this cooling to be showered down on the vertically rising vapor, and means for heating the condensate deposited in the combined vapor and condensate chamber.

Distilling With Steam

No 1,520,121. Dec. 23, 1924, Henry E. Deckebach, Cincinnati, Ohio. Process of increasing efficiency of distillation. Class 196; sub-class 88. Filed June 23, 1920. Three claims.

To increase the quantity of desired distillate from crude oil this process comprises providing a mixture of steam and fluid petroleum distillate, withdrawing part of the crude oil, admixing crude oil withdrawn from the mass of crude oil with the admixture of the steam and fluid distillate and discharging same above the body of the crude oil.

Van Tilburg Gets Patent

No. 1,520,161. Dec. 23, 1924, Frank E. Van Tilburg, Minneapolis, Minn Apparatus for separating composite oils into component parts Class 196; sub-class 106. Filed Jan. 25, 1923. Four claims.

To return condensates trapped back from any vapor lines, to auxiliary stills in the main stills, this apparatus for separating lighter products from crude oil, which gives increased yields and lower fuel costs includes a plurality of main stills connected in series, an auxiliary still in each of said main stills, the earlier of said auxiliary stills being connected with each other in series, a plurality of separators connected respectively with said main stills for receiving the vapors therefrom, and means for trapping back into said auxiliary stills the condensates forming in said separators whereby said condensates will be redistilled unmixed with the original mass of oil and by the same source of heat employed in the initial distillation.

Neutralizing with Lime

No. 1,521,282. Dec. 30, 1924, Sterling H. Diggs, Whiting, Ind., art of refining oils. Class 196; sub-class 41. Filed Jan. 31, 1921. Assigned to Standard Oil Co. of Indiana. Six claims.

In the refining of reduced crude oil, this process comprises subjecting the oil to the action of from 20 to 200 pounds of sulfuric acid per 100 gallons, settling out sludge, heating the oil to 180°, adding from 1 to 5 per cent of aqueous suspension of finely dispersed hydrated lime, the quantity of the latter being sufficient to neutralize the oil, continuing moderate agitation for a period and removing the aqueous liquid.

Improvement in Acid Treating

No. 1,521,283. Dec. 30, 1924, Sterling H. Diggs, Whiting, Ind., art of refining oils. Class 196; sub-class 40. Filed Jan. 31, 1921. Assigned to Standard Oil Co. of Indiana. Seven claims.

Another improved process of refining hydrocarbon oils comprises subjecting the oil to the action of sulfuric acid: subsequently, and before removing the sludge, adding fuming sulfuric acid to the oil, the quantity of fuming acid being from 4 to 25 per cent of the treating acid, the combined quantity of treating and fuming acids being substantially equivalent to the quantity of treating acid required to give the desired treat, separating the combined sludge, washing acid therefrom and settling the remainder to effect stratification.

For Treating High Sulfur Oils

No. 1,521,278. Dec. 30, 1924, Edgar M. Clark, New York, refining of petroleum oil. Class 196; sub-class 28. Filed July 3, 1919, assigned to Standard Development Co. (S. O. N. J.). Two claims.

An improved process of refining petroleum distillates of high sulfur content comprises treating the same with 66° Baumé sulfuric acid, separating the treated oil, redistilling to leave a bottom of high sulfur concentration, again treating the distillate with 66° Baumé sulfuric acid and redistilling as before, whereby there is obtained a distillate of minimum sulfur content with a minimum refining loss.

Production

To Increase Oil Recovery

No. 1,520,737. Dec. 30, 1924, Robert L. Wright, Fort Dodge, Ia. Method for increasing oil extraction from oil-bearing strata. Class 166, sub-class 21. Filed April 26, 1924. Six claims.

In order to increase the production of oil bearing strata this method comprises the formation of a well casing extending below the oil containing strata forming a chamber around the bottom of said casing, and running a series of radially extending channels laterally and inclined upwardly from said chamber into the oil bearing strata.

To Prevent Clogging Well

No. 1,520,052. Dec. 23, 1924, Rudolph Conrader, Erie, Pa. Method of operating oil wells and treating the products therefrom and apparatus therefor. Class 166; sub-class 1. Filed Nov. 15, 1920. 25 claims.

To assist in the flow of oil wells, a pressure is maintained on the well of about the vapor pressure of the most volatile constituent of the oil vaporizing at well temperature at a pressure below the rock pressure whereby the lighter constituent is maintained in liquid form and can act as a solvent for the heavier constituents and prevent their clogging the well.

Melting Paraffin in Wells

No. 1,520,012. Dec. 23, 1924, Rudolph Conrader, Erie, Pa. Method of treating oil wells and apparatus therefor. Class 166, sub-class 17. Filed March 28, 1921, 16 claims.

To prevent the accumulation of paraffin in the well cavity which might impede the flow, the well is maintained at a pressure approximating though below rock pressure and the well heated

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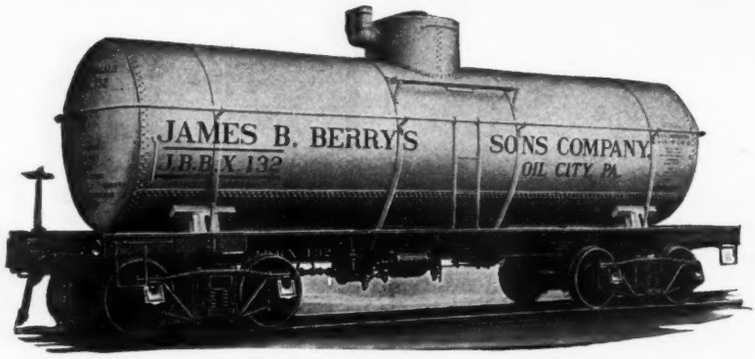

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by introducing kerosene vapor followed by the introduction of liquid kerosene.

Casing-to-Tool Connection

No. 1,519,445. Dec. 16, 1924, Eben D. Finney, Ranger, Tex. Oil-well tool connection. Filed Dec. 20, 1922, 13 claims, class 255; subclass 27.

To enable the lower casing to be pulled from an oil well with the upper or independently thereof without transmitting the jar to the upper and wasting the force of the blows, this invention embodies a casing-to-tool connection comprising a tool-holding connector-rod, an upper pulling member, and means forming part of the connector-rod whereby said rod may be reciprocated independently of said pulling member.

Oil Extraction by Boiling

No. 1,520,752. Dec. 30, 1924, Wilhelm Horwitz, Berlin, Germany. Process for the recovery of petroleum. Class 196; sub-class 14. Filed Feb. 27, 1920. One claim.

To recover petroleum from oil bearing sand this process comprises boiling the oleiferous substance with water under pressure, and simultaneously stirring the mixture by jets of hot water under pressure introduced tangentially into said mixture.

Natural Gasoline

Improved Scrubbing Method

No. 1,520,627. Dec. 23, 1924, Malcolm P. Youker, Bartlesville, Okla. Process of recovering natural-gas gasoline from natural gas. Class 183; sub-class 114.6. Filed April 9, 1923. Assigned to Phillips Petroleum Co., of Bartlesville Five claims.

To recover gasoline from natural gas this method comprises scrubbing natural gas with liquid components of said natural gas which are liquefied by compressing and cooling the gas which results from the scrubbing of said natural gas with said liquid, the liquid which results from the scrubbing of said natural gas with the liquid being the natural gas gasoline which is recovered by the process.

Miscellaneous

Breaking Up Emulsions

No. 1,520,953. Dec. 30, 1924, Ernest M. Johansen, Philadelphia. Method of separating oils, class 196; sub-class 44. Filed Jan. 20, 1921, assigned to Atlantic Refining Co., Philadelphia. 15 claims.

This invention comprises the method of separating from each other hydrocarbons of different series, as unsaturated from saturated hydrocarbons, and having substantially the same boiling point, which consists in agitating the mixture with soap and water in such quantities that hydrocarbons of one series will become emulsified to a a substantial extent while those of another series do not so readily emulsify, separating the resulting emulsion from the unemulsified hydrocarbons, and breaking the emulsion to separate the hydrocarbons therefrom.

Ether In Motor Fuel

No. 1,519,905. Dec. 16, 1924, Jean Felix Paul de La Riboisiere, of Berlin, Germany. Fuel for internal-combustion engines. Class 44, sub-class 9. Filed Sept. 24, 1923. Seven claims.

An improved engine fuel comprises a considerable proportion of liquid hydrocarbons boiling above 160° C., a small proportion of an aliphatic ether of low

boiling point adapted to promote the ignition thereof and a proportion of a monohydroxyl phenol adapted to retain the ether in the mixture.

Reclaiming Crank Case Oil

No. 1,518,684. Dec. 9, 1924, Louis Benge, Sterling, Col. Apparatus for reclaiming waste lubricating oils. Class 196, sub-class 16. Filed Feb. 15, 1922. Three claims.

An evaporating apparatus for separating light hydrocarbon oils and water from heavier crank case oils comprises an outer casing having a vent at its upper end, an air inlet at its lower end, means for heating the air as it enters the lower end of the casing, and a series of evaporating pans disposed within the casing, each pan being inclined, and the lower end of one pan discharging upon the higher end of the next lower pan, each pan at its lower end being perforated and formed with a downwardly and inwardly directed flange upon which the perforations discharge, the flange at its lower margin extending downwardly and formed to provide a series of drip points discharging into the upper end of the pan below.

To Make Fixed Gas

No. 1,520,804. Dec. 30, 1924. Charles R. Burke, Tulsa and Thomas F. Hintze, of Arrowchar, N. Y. Process and apparatus for making oil gas. Class 196; sub-class 49. Filed Sept. 16, 1922. Right of said Burke assigned to Louise P. Burke of Tulsa. Nine claims.

To increase the production of oil gas while producing low boiling hydrocarbons, this process comprises subjecting high boiling point hydrocarbons to a temperature sufficient to vaporize the same, then subjecting said vapors while in their course through heated zones to sufficient heat to convert at least a portion of the same into a fixed gas, passing said gas and vapors into a holder and maintaining in said holder a body of hydrocarbon liquid formed by the condensation of vapors passing into said holder, passing lighter vapors from said holder to a condenser and condensing the same to produce a low boiling point by-product, passing the condensate from said holder to a converter, and directly subjecting said condensate in said converter to sufficient heat while permitting the same to expand, to convert the major portion only of the same into a fixed gas and a substantial minor portion into fuel oil.

For Tar Distillation

No. 1,521,490. Dec. 30, 1924, Sigurd Walfrid Albert Wikner, Newcastle-Upon-Tyne, England. Distillation of tar and the like. Class 196, sub-class 5. One-eighth assigned to Newcastle-Upon-Tyne & Gateshead Gas Co., of Newcastle-Upon-Tyne, England. One claim.

To increase production and lower cost of tar distillation this process comprises delivering tarry liquid into a closed vessel at such a rate that it stands at a constant level therein slightly above an outlet, vaporizing the water contained in the liquid by heating it in a zone between the level of the liquid and the outlet, heating the bulk of the liquid by means of the watery vapors driven off therefrom, distilling the tar passing from said outlet and leading back the vapors resulting from said distillation and causing them to heat the tar prior to said distillation.

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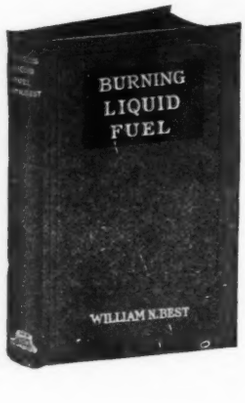

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ON THE LAZY BENCH

Not In His Class

The ocean liner was steaming slowly up the bay. Directly in its path drifted an old mud scow.

"Hey, down there!" bellowed an officer on the liner. "Get that old tub out of the way!"

The grizzled, weather-beaten ancient on the scow looked up.

"Be you the cap'n o' that there vessel?" he asked.

"No, I'm not; but what difference does that make?"

"Waal"—spitting contemptuously over the side—"I be cap'n o' this here craft an' I speaks only to my equals."

—The Booster

◈ ◈ ◈

Hard-Boiled

Two negroes were lying behind a packing case on the dock at Brest, taking the labor out of the alleged Labor Battalion. Said one boastfully:

"Boy, Ah comes f'um a tough breed. Mah ole man done cut his nails wif a ax an' brush his teef wif a file."

"Huh, ain't so tough. Mah ole man am a plumber, an' twice a week he done shave hisself wif a blow torch."

—The Booster

◈ ◈ ◈

Mark of a Weakling

Elderly gentleman to son: "I wish you would not smoke those cigarettes around the office."

Son: "Do any of the stenographers object to my smoking cigarettes in the office?"

One of the stenographers: "I do."

Son: "Why?"

Stenographer: "It looks too feminine."

—Fleckenstein Visible Gasometer

◈ ◈ ◈

She Do, Do She!

Sambo: "You know, Rastus, dat every time I kiss my wife she closes her eyes and hollers?"

Rastus: "Ah say she do."

Sambo: "What's dat, nigger?"

Rastus: "Ah say, do she?"

—Rio Grande Speedener

◈ ◈ ◈

"James, after this, please uncork all the bottles in my presence. I notice that when you draw the corks in the pantry the wine is extremely decollete."

"Extremely decollete, sir?"

"Yes, James: very low in the neck."

—Keene Thrusts

◈ ◈ ◈

"How's the riding school going, old man?"

"Rotten! Pupils falling off every day."

—Doherty News

He Wins!

It was during the noon hour—the night shift noon hour. They were all huddled around a steam pipe trying to thaw out.

"Ah wins."

"What you all got?"

"Three aces."

"Ain't no good. Ah wins."

"What you got?"

"Two nines and a razor."

"Yuh sho do. How come you so lucky?"

—Rio Grande Speedener

◈ ◈ ◈

Why Explain?

"Where are you going in such a hurry?" said Mrs. —— to her husband

"Over to Jack ——'? house. He has just telephoned to ask if I could lend him a corkscrew, and I'm taking it over."

"Couldn't you send it?"

"Woman," said Mr —— in cutting tones, "the question you ask me shows why most women are unfit to lead armies and make quick decisions in business deals involving millions. When the psychological moment arrives they don't know what to do with it."

—Ioco Times

◈ ◈ ◈

Would She Wink?

Fair Tourist (at the Vatican)—I'd like to see the Pope.

Swiss Guard—His Holiness does not grant an audience today.

Fair Tourist—Well, ask him if he could just peep out of the window.

—Doherty News

◈ ◈ ◈

Perils of Carolling

Kindly Old Gent—"Hullo, my little man, crying! What's the trouble?"

Leader of Party of Small Carol Singers—"He ain't cryin', Mister. He was trying to sing bass and it made 'is nose bleed."

—Ioco Times

◈ ◈ ◈

An Even Break

Mr.—Am I never to have my way about anything?

Mrs.—Oh, yes. When we agree you may have your way, but when we disagree I'll have mine.

—The Booster

◈ ◈ ◈

Rastus Jackson, a thoroughly married darky, was one day approached by a life insurance agent.

"No, sah," declared Rastus, emphatically. "Ah ain't any too safe at home as it is."

—Keene Thrusts

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Sterilized Rags

BATHED in chemicals to disintegrate the dirt and make them as clean as it is humanly possible to make them.

BOILED in live steam for twenty minutes until germ life is entirely destroyed and complete sterilization takes place.

BAKED at 275° F. for thirty minutes, just as an extra precaution.

That's the treatment that every rag goes through before it is labeled a Kleen Kwality Kloth. Then these wipers are wrapped and baled so thoroughly that dirt or germs cannot touch them while they are in transit.

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REFINERY-TANK WAGON MARKETS

Mid-Continent Gasoline Markets Continue Steady Advance

TULSA, Feb. 7

MID-CONTINENT gasoline markets have continued their steady advance during the past week. All grades are selling at prices ½ to ¾ cent higher than at the opening of the week on Feb. 2.

Kerosene has been generally quiet this week but prices have advanced fractionally. Stove distillates are sluggish and gas oil demand has been less. Fuel oil is slightly cheaper in some quarters although there are refiners who are still demanding $1.35 per barrel and upwards.

The advance in gasoline prices has been made this week without the aid of a tank wagon advance in Standard Oil Co. of Indiana territory or a general advance in the posted price of Mid-Continent crude. Price increases have not been as abrupt as during the last two weeks in January. Quotations have stepped up gradually during the week.

A big factor in the market has been that refiners anticipate higher crude postings and consequent higher tank wagon schedules in the middle west. Rumors have been current during the past two days that crude will be marked up early next week.

What To Do?

Refinery sales managers are in a dire predicament in times like the present. They want to sell and yet they are afraid the price will go higher. If they refrain from selling they are afraid that buyers will stay out of the market later and that they won't have an opportunity to move their motor fuels.

Probably the best way to reach a decision would be to toss up a coin. As it is sales managers scratch their heads, sell a little gasoline and then raise the price another ¼ cent.

Refiners appear to realize more clearly than they have during the past two winters that spring demand is still a long ways off. There is less tendency to figure that demand will open up big in April and that gasoline placed in storage now can be sold then to advantage.

Admitting that prospects look bright at this time refiners are remembering there was no cloud on the horizon at this time last year. While inclined to add somewhat to gasoline inventories the tendency is to keep a good share of the gasoline moving. Optimism, in other words, is being tinged with caution.

One important refiner in Oklahoma said this week that he proposed to keep virtually his entire production moving as long as there is a profit to be made on current sales. If gasoline prices slip so low or crude gets so high that a day to day profit cannot be made then a decision on a possible storage campaign will be made. The refiner who has adopted this policy, cannot forget that one big field brought in within the next few months might create another disastrous market.

One healthy feature of the present market is the fact that the outsanding Independents in Group 3 are not making the mistake of attempting to uphold the present market or trying to force it upwards by buying gasoline from the weaker manufacturers while storing their own material. It will be remembered that in both 1923 and 1924 some of the refiners bought heavily during the early months of the year and were forced to take heavy inventory losses as the season advanced.

Ordinarily emergency methods like the one mentioned above do not have any beneficial effect on the market except for a few days at a time. It has not been the history of the Group 3 market that the absorption of distress gasoline by other manufacturers led to a curtailment of production. On the contrary the smaller refiners continued to run as before and in a week or so were back in the market with more distress gasoline which had to be moved.

Building Inventories

This year the larger refiners with their own station systems or heavy contracts are trying to build up their inventories of gasoline as usual to provide a reserve for the rush season. But they are doing so largely by not pursuing an agressive sales campaign among jobbers and by quoting prices slightly in advance of the market.

Organizations like Cosden & Co. are not pushing sales. They are taking care of regular customers, of course, but carload marketers are unable to buy from them and no regular quotations are posted. Some refiners have been quoting a price above the market during the latter part of the week.

Export Buying

During the early part of the week exporters were out of the gasoline market and reported business to be dull. Yesterday, however, two companies were in the market. Sinclair Refining Co. was seeking 64-66, 375 end point gasoline for delivery over the next 30 days with offers reported to be below 15 cents. As far as could be learned no refiners were willing to sell at the prices mentioned.

Atlantic Refining Co. was reported to have bought 50 cars of the same product at 15 cents per gallon f. o. b. north Texas points. In Oklahoma the Atlantic appeared to be buying kerosene only.

(Continued on page 101)

Price Correction

Due to delayed transmission in telegrams on Feb. 2, prices on Oklahoma navy and export gasoline, natural gasolines, blends, fuel oil, Arkansas gasolines, and Louisiana gasolines and fuels were incorrect as carried in the issue of National Petroleum News as of Feb. 4.

These prices have been corrected in this issue and appear in the second column of the current refinery market table dated Feb. 2.

All prices and market information printed herein have been gathered by the staff of National Petroleum News from reliable sources and so far as can be ascertained thoroughly represent the going market as defined for each product on the date given for those particular prices. Both buyers and sellers have been checked in the gathering of this information and actual sales studied.

These prices and this information are subject at all times to correction for errors. Anyone having knowledge of any facts which would indicate anything different from the information which is given, is especially urged to send in those facts to the head office of National Petroleum News at once, or take them up with the nearest representative. All such facts will be promptly and thoroughly investigated.

The staff of National Petroleum News is cognizant of the fact that this market information has come to have a high standing in the industry. It wants to not only maintain that standing, but to improve it and to that end, invites the co-operation of the entire oil industry.

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Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

GASOLINE AND NAPHTHA

PENNSYLVANIA	Prices Feb. 9	Prices Feb. 2	Prices Jan. 26
52-54 Naphtha	13½–14	12 –12½	10¾–11¼
54-56 Naphtha	14 –14½	12½–13	11¼–11¾
58-60 Gasoline	15 –15½	13¾–13½	12 –12¾
60-62 Straight-run gasoline	15½–16	14 –14½	13 –13½
62-64 Straight-run gasoline	16½–17	15 –15½	14 –14½
64-66 Straight-run gasoline	17½–18	16¾–16½	15 –15½
68-70 Straight-run gas. 350 E.P.	18 –18½	17 –17½	16½–17
68-70 Straight-run gas. 305-320 E.P.	19 –19½	–18½	18 –18½
70-72 Straight-run gas. 300-305 E.P.	20 –20½	–19	18½–19
OKLAHOMA			
48-50 450 E. P. naphtha	11 –11¼	10 –10¼	8½– 9
50-52 450 E. P. naphtha	11¼–11½	10¼–10½	8¾– 9¼
56-58 450 E. P. gasoline	11¾–12	10¾–11	9 – 9¼
58-60 U.S. Motor 437 E.P. 131 i.b.p.	12 –12¼	11 –11¼	9½–10
60-62 400 E. P. gasoline	13½–13¾	12¼–12¾	11 –11¼
64-66 375 E. P. gasoline	–15	14½–15	12¾–13
68-70 350 E. P. gasoline	15½–15¾	15 –15¼	13¼–13½
NORTH TEXAS			
48-52 450 E. P. naphtha	11 –11¼	10½–10¾	8¼– 8¾
56-58 450 E. P. gasoline	11½–11¾	11 –11¼	8¾– 9¼
58-60 450 E. P. gasoline	11¾–12	11¼–11½	9¼– 9½
58-60 U. S. Motor gasoline	12 –12¼	11¾–12	9½–10
60-62 400 E. P. gasoline	13½–13¾	13¼–13½	11 –11½
64-66 390 E. P. gasoline	14½–14¾	14½–14¾	12¾–12¾
64-66 375 E. P. gasoline	–15	14½–15	12½–13
68-70 350 E. P. gasoline	15½–15¾	15 –15¼	–13¼
NORTH LOUISIANA			
58-60 450 E. P. gasoline	12 –12¼	–11½	9¾–10
58-60 437 U. S. Motor gasoline	12¼–12½	–11¾	10 –10½
64-66 390-400 E. P. gasoline	14¾–15	–14½	13 –13¼
64-66 375 E. P. gasoline	15 –15¼	–14¾	12¾–13
ARKANSAS			
58-60 450 E. P. gasoline	12½–12¾	11½–11¾	9¾–10¼
58-60 U. S. Motor gasoline	12¾–13	11¾–12	10 –10½
64-66 375 E. P. gasoline	15¼–15½	14½–14¾	12¾–13
CALIFORNIA			
54-56 U. S. Motor gasoline	–11	– 9	– 9

Note: This is without the 2-cent state tax included in the price by California refiners for shipments within the state.

NATURAL GASOLINE

OKLAHOMA			
Grade Double A	11¾–12	10½–10¾	9½– 9¾
Grade A	11¾–12	10½–11	9½–10
Grade Double B	–11	10 –10¼	8½– 8¾
Grade B	–11	10 –10¼	8¾– 9
Grade C	–10½	– 9¾	– 8½

NOTE—Specifications adopted by Ass'n of Nat. Gaso. Manufacturers:
Grade Double A—80-87.9 gravity, 90% recovery, not over 375 E. P.
Grade A—72-79.9 gravity, 90% recovery, not over 375 E. P.
Grade Double B—84-92 gravity, 85% recovery, not over 375 E .P.
Grade B—76-83.9 gravity, 85% recovery, not over 375 E. P.
Grade C—80-90 gravity, 78% recovery, not over 375 E. P.

NORTH TEXAS			
*Grade Double A	11¾–12	10½–10¾	9½– 9¾
*Grade A	11¾–12	10½–11	9½–10
*Grade Double B	–11	10 –10¼	8½– 8¾
*Grade B	–11	10 –10¼	8¾– 9
Grade C	10½–10¾	– 9¾	– 8½

*F. O. B. Breckenridge.

CALIFORNIA			
73-78 375 E. P.	–14	–12	–12
OKLAHOMA NATURAL GASOLINE—BLENDS			
64-66 435-440 E. P.	11¾–12	10¾–11	9 – 9¼
NORTH TEXAS			
64-66 435-440 E. P.	11½–11¾	–11	9½– 9¾
PENNSYLVANIA			
68-70 Grav. 437 E. P.	14 –14½	12½–13	12¾–12½
64-66 Grav. 437 E. P.	14 –14½	12½–13	12¾–12½
60-62 Grav. 437 E. P.	14 –14½	12½–13	11¾–12
68-70 Grav. 420 E. P.	15 –15½	13½–14	13¼–13½
68-70 Grav. 400 E. P.	16 –16½	14½–15	14 –14¼

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	7¼– 7½	7¼– 7½	7¼– 7½
46 Water White Kerosene	7¾– 8	7¾– 8	7¾– 8
47 Water White Kerosene	8¼– 8½	8¼– 8¼	8¼– 8½
300 Burning Oil	7¾– 8	7¾– 8	– 7¾
OKLAHOMA			
40-42 Prime White Distillate	4¼– 4½	4⅜– 4⅜	4⅜– 4⅜
41-43 Water White Kerosene	4½– 4¾	– 4½	4⅜– 4½
42-44 Water White Kerosene	4¾– 5	4⅝– 4¾	4⅝– 4¾
NORTH TEXAS			
41-43 Water White Kerosene	– 4½	4⅜– 4½	4¼– 4⅜
42-44 Water White Kerosene	4⅝– 4¾	4½– 4⅝	4½– 4⅝
NORTH LOUISIANA			
41-43 Water White Kerosene	– 5	4¾– 5	4⅝– 4⅞
ARKANSAS			
41-43 Water White Kerosene	5 – 5¼	5 – 5¼	5 – 5¼
42-44 Water White Kerosene	5¼– 5½	5¼– 5½	5¼– 5½
CALIFORNIA			
40-42 Water White Kerosene	–14	–14	–14

NEUTRAL OILS

PENNSYLVANIA	Prices Feb. 9	Prices Feb. 2	Prices Jan. 26
(Viscosity at 70°F.)			
220 Vis. No. 3 Assoc. Filt	–29½	–29	28 –29
200 Vis. No. 3 Assoc. Filt	–26½	26 –26½	25½–26
180 Vis. No. 3 Assoc. Filt	–24½	24 –24½	23½–24
150 Vis. No. 3 Assoc. Filt	–22	22 –22½	21½–22
(Non-Viscous)			
34 Grav. 350-360 Flash	8½– 8¾	– 8½	– 8½
36 Miners Neutrals 300-305 Flash	7¾– 8	7½– 8	7½– 8
OKLAHOMA			
(Viscosity at 100°F.)			
70 Vis. No. 2½-3 color	6 – 6¼	6 – 6½	4¼– 4½
100 Vis. No. 2 color	7½– 8	7¾– 8	4¾– 5
100 Vis. No. 2½-3 color	7 – 7½	7 – 7½	4¼– 4½
150 Vis. No. 3 color	8¾– 9	8¾– 9	7¾– 7½
150 Vis. No. 4 color	8½– 8¾	8½– 8¾	6¾– 7
180 Vis. No. 3 color	9½– 9¾	9½– 9¾	8¾– 9
180 Vis. No. 4 color	9¾– 9½	9¾– 9½	8¾– 8½
180 Vis. No. 5 color	9 – 9¼	9 – 9¼	7¾– 8
200 Vis. No. 3 color	11 –11¼	11 –11¼	10¾–10½
200 Vis. No. 4 color	10¾–11	10¾–11	9¾–10
200 Vis. No. 5 color	10½–10¾	10½–10¾	9½– 9½
220 Vis. No. 3 color	13¼–13½	13¼–13¾	11¾–12
220 Vis. No. 4 color	12¾–13	12¾–13	11 –11¼
220 Vis. No. 5 color	12¾–12¾	12¾–12½	10½–10½
240 Vis. No. 3 color	14¾–15	14¾–15	13¾–14
240 Vis. No. 4 color	14¼–14½	14¼–14½	13 –13¼
240 Vis. No. 5 color	13¾–14	13¾–14	12¾–12½
280 Vis. No. 3 color	17¾–18	17¾–18	16½–17
280 Vis. No. 4 color	16¾–17	16¾–17	15¾–15¾
280 Vis. No. 5 color	15¾–16	15¾–16	13¾–14
300 Vis. No. 5-6 color	17¾–18	17¾–18	16¾–17
GULF COASTAL			
(Viscosity at 100°F; cold test 0)			
100 Vis. No. 2 Color Unfilt. Pale	9 –10	9 –10	8½– 9½
200 Vis. No. 3 Color Unfilt. Pale	14 –14½	14 –14½	12½–13½
300 Vis. No. 3 Color Unfilt. Pale	16½–17	16½–17	15 –15½
500 Vis. No. 3½ Color Unfilt. Pale	18½–19	18½–19	17 –18
750 Vis. No. 4 Color Unfilt. Pale	23 –23½	23½–24	22½–23
200 Vis. No. 5½ Color Red Oil	12½–13	12½–13	11½–12
300 Vis. No. 5½ Color Red Oil	14 –14½	14 –14½	13½–14
500 Vis. No. 6 Color Red Oil	16 –16½	16 –16½	15 –15½
750 Vis. No. 6 Color Red Oil	21 –22	21½–22	20½–21
CALIFORNIA			
(Viscosity at 100°F.)			
100 Vis. No. 2 color	13½–14½	13½–14½	13½–14½
100 Vis. No. 3 color	9 –10	9 –10	9 –10
200 Vis. No. 3 color	14½–15½	14½–15½	14½–15½
300 Vis. No. 3 color	14 –16	14 –16	14 –16
450 Vis. No. 3½ color	19½–20½	19½–20½	19½–20½
550 Vis. No. 3 color	21½–22½	21½–22½	21½–22½
600 Vis. No. 3½ color	23½–24½	23½–24½	23½–24½
100 Vis. No. 5 color	8 – 9	8 – 9	8 – 9
200 Vis. No. 5 color	13½–14½	13½–14½	13½–14½
300 Vis. No. 5 color	14 –15	14 –15	14 –15
400 Vis. No. 5 color	16 –17	16 –17	16 –17
500 Vis. No. 5 color	17 –18	17 –18	17 –18
600 Vis. No. 6 color	18 –19	18 –19	18 –19
700 Vis. No. 7 color	19½–20½	19½–20½	19½–20½

CYLINDER STOCKS

OKLAHOMA			
190-200 Vis. at 210° Bright Stock	30 –35	30 –35	29 –34
150-160 Vis. at 210° Bright Stock	27 –31	27 –31	26 –30
Medium Filtered Stock	17 –17½	16 –17	16 –16½
600 Steam Refined Olive Green	9 –11	9 –10	8½– 9½
600 Steam Refined Dark Green	6½– 9	6½– 8	6½– 7½
Black Oil	– 5	4¾– 5	4¾– 5
PENNSYLVANIA			
(1-inch Immersion Test)			
600 Steam Refined	–23	23 –24	22¾–23
635 Steam Refined	27 –28	–28	–27
650 Steam Refined	29½–30	29 –30	29 –30
600 Flash	34 –34½	–33	32 –33
600 Warren E	–26½	–27	–26
600 Oil City E	25 –25½	–26	–25
600 Filtered D	–31	–32	31 –32
Cold Test Stocks (bright filtered)	40 –41	–40	39 –40
Cold Test Stock (dark filtered)	38 –39	–38	37 –38
Black Oil	– 8	– 8	– 8

(Note—Prices of total immersion test goods average 1 to 2 cents per gallon higher.)

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

You'll Find Dixie Gas Carried in Heil Tanks

WHEN the Independent Distributor of the oil industry wants a real, good, serviceable, Quality Tank, he does not hesitate to come to Heil for it. In this year, as well as in previous years, hundreds of Oil Jobbers and Marketers have asked Heil to build their tank truck equipment. How about your tanks? If there is a special design or particular feature which you wish to incorporate in the construction of your tank, you may be sure that Heil can carry out your idea to your best satisfaction.

The picture shows a 1000 gallon, 4 compartment oval truck tank mounted on a Mack AB 162" WB chassis. This tank includes, Heil Adjustable Sub-Sills, Hinged Metal Panel Can Racks, Integral Can Box with top hinged door, 14" Manholes, 6" Filler Plugs, Heil Full-Flow Air Vents, 2" Piping, 2" Wheaton Faucets, and the Heil Hinged Bumper. Note the underslung barrel racks, one on each side.

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San Francisco, Calif.

Bacon & Matcheson Forge Co.,
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Seattle, Washington.

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Toledo, Ohio.

Continental Body Co.,
476 Union Ave.,
Memphis, Tenn.

Leonhardt Wagon Mfg. Co.,
412 E. Saratoga St.,
Baltimore, Md.

Motive Parts Corporation,
796 Tenth Ave.,
New York, N. Y.

Steffen Van Steenwyk Co.,
612 West 7th St.,
Sioux City, Iowa.

Shields-Harper & Co.,
1429 S. Los Angeles St.
Los Angeles, Calif.,

Mayer Body Corporation,
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Pittsburgh, Pa.

H. P. Wilson & Co.,
17th & Blake Sts.,
Denver, Colo.

Kranz Automotive Body Co.,
3032 Gravois Ave.,
St. Louis, Mo.

Martin & Schwartz,
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QUALITY IS PARAMOUNT — Quality TANKS BODIES & HOISTS "Made by Heil" — QUALITY IS PARAMOUNT

Refinery Markets On Wax And Heavy Oil Products

Pennsylvania, Oklahoma, North and South Texas, Louisiana, Arkansas, California

WAX

PENNSYLVANIA	Prices Feb. 9	Prices Feb. 2	Prices Jan. 26
	(Per Pound New York)		
122-124 White Crude Scale	5⅞- 6	- 6	5⅞- 6
124-126 White Crude Scale	- 6	- 6	- 6
OKLAHOMA			
	(Per Pound Group 3)		
124-126 White Crude Scale	5½- 5¾	5½- 5¾	5¾- 5⅞
CALIFORNIA			
White Crude Scale	7½- 8	7½- 8	7½- 8

FUEL OIL

PENNSYLVANIA			
36-40 Fuel Oil	6¾- 7	6¾- 7	6½- 6¾
30-34 Fuel Oil	- 6¼	6¼- 6½	- 6¼
OKLAHOMA			
38-40 Straw distillate	3⅞- 4	- 4	- 4
36-38 Straw distillate	- 3⅞	- 3⅞	- 3⅞
32-36 Gas oil	- 3¾	- 3¾	- 3¾
26-30 Fuel oil (Bbl.)	1.35 -1.40	1.32½-1.35	-1.40
24-26 Fuel oil (Bbl.)	1.32½-1.35	1.35 -1.37½	-1.35
24-26 Fuel oil (Buyers' cars)	1.27½-1.32½	1.35 -1.37½	-1.35
20-22 Fuel oil (Bbl.)	1.27½-1.32½	1.30 -1.32½	-1.32½

NORTH TEXAS	Prices Feb. 9	Prices Feb. 2	Prices Jan. 26
38-40 Straw Distillate	3⅞- 4	3⅞- 4	3⅞- 4
32-36 Gas Oil (Gal.)	- 3⅞	- 3¾	- 3¾
24-26 Fuel, per bbl	1.45-1.55	-1.40	1.30-1.35
GULF COASTAL			
Fuel	1 75-1.85	1.75-1.85	1.65-1.75
Gas Oil	5 - 5¼	5 - 5¼	4¾- 5
NORTH LOUISIANA			
32-36 Gas Oil (Gal.)	4 - 4¼	3¾- 3¾	3½- 3¾
18-22 Fuel Oil (Bbl.)	1.40-1.45	1.40-1.50	1.30-1.35
ARKANSAS			
38-40 Distillate	4¼- 4⅜	4¼- 4⅜	4¼- 4⅜
32-36 Gas Oil	4 - 4¼	4 - 4¼	4 - 4⅛
20-24 Refinery Fuel Oil (Bbl.)	1.30-1.35	1.30-1.35	1.30-1.35
Smackover Crude Fuel (Bbl.)	1.25-1.30	1.30-1.35	1.30-1.35
East Field Crude Fuel (Bbl.)	1.25-1.30	1.30-1.35	1.30-1.35
CALIFORNIA			
14-18 Fuel Oil (Bbl.)	1.60	1.40	1.40
14-18 Bunker Oil (Bbl.)	1.60	1.40	1.40
24-30 Gas Oil (Bbl.)	1.85	1.65	1.65
27 + Diesel Oil (Bbl.)	1.85	1.65	1.65

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

(Continued from page 97)

There is no surplus of export gasoline in the market now. Refiners have not completed their shipments of the material bought earlier in the month. For the most part they are sold up on the high gravity goods until Feb. 15 to 20.

Domestic Sales Fair

Some refiners are complaining that jobbers are not buying U. S. Motor as freely as they might considering the good weather which is being enjoyed in Indiana territory. For the most part, however, refiners report that jobbers have been taking out a normal amount of gasoline for this time of the year and that some accumulation in jobber storage is indicated.

At present prices jobbers cannot operate profitably in Standard of Indiana territory. The Mid-Continent gasoline market has advanced 4 cents per gallon in the past 5 weeks while the Indiana tank wagon has advanced only 3 cents per gallon.

The Indiana company apparently has adopted a policy of restricting its advances in gasoline prices to an absolute minimum on crude costs. The company has had such unfortunate results from too rapid advances during the past two years that it apparently expects to feel its way along and avoid wide margins if possible.

Yesterday U. S. Motor was selling at 11½ to 11¾ cents per gallon at the opening of business. Orders reached the field in good volume and before offices were closed the price was firm at 11¾ cents per gallon. Today sales are being made at 11¾ to 12 cents with the possibility being indicated that Monday's market will be 12 cents.

Natural Gasoline Scarce

Natural gasoline has been more active even than straight run goods during the past week. Both refiners and jobbers have been consistent purchasers. It is apparent that the supply of natural gasolines is not as great as the demand at the present time. Buyers are forced to shop around over the field to obtain even a few cars for prompt delivery.

Grades A and Double A have moved upwards from 10½ to 11¾ cents during the past week. Grade B has advanced nearly 1 cent per gallon and Grade C is up ½ cent.

Inquiry among manufacturers indicates that little or no natural gasoline is being stored now. Manufacturers say that they are having so much difficulty in filling orders of their regular customers that they have not been able to accumulate any inventories.

Blending Started Again

The high prices asked for premium grades of gasoline has created a new demand for blended gasolines during the last few weeks. Trading in naphtha has become active as blenders have bought heavily and prices are now nearly up to U. S. Motor. Blenders are selling 64-66, 435 to 440 end point goods at prices ranging from 11¾ cents to as high as 12½ cents per gallon.

Kerosene Looks Better

Atlantic Refining Co. began to buy kerosene for export yesterday in Oklahoma at a price reported to be around 4½ cents per gallon. The buying stimulated the burning oil market which was looking up slightly prior to that time. One refiner raised his price on 41-43 water white to 5 cents per gallon and many posted a price of 4¾ cents. A little is still selling at 4½ cents however.

Distillates for home heating are still slow. In some quarters buyers have been able to buy 38-40 light straw at ⅛ cent under the 4-cent level which this oil has occupied for many weeks.

Lubricating Oils

The price advance of Mid-Continent lubes last week appeared to be just the medicine that the market needed. As soon as new lists were issued buyers began seeking oils in which they had displayed no interest for several months. It now appears probable that succeeding advances in crude will be followed by an immediate marking up of lists. Some advances may be made even if crude does not advance soon.

Steam refined cylinder stocks are active and stronger at prices ½ to 1 cent above last week's levels. Bright stocks are moving well at prices ranging from 27 to 35 cents per gallon, depending on the grade.

Wax is still in demand with refiners keeping well sold up at prices 5½ cents per pound and above.

Fuel Oils Softer

In Oklahoma fuel oil has been sluggish and prices are shading lower. Reports from Kansas City and Chicago indicate that fuel has been backing up to a certain extent in those centers and marketers are busy unloading the material they bought ahead.

Some low gravity fuel has sold in buyers cars at $1.25. On 24-26 fuel sales are being made at $1.30 to $1.35 per barrel.

Gas oil is 3¾ cents per gallon. Many refiners are not selling, preferring to keep present production for cracking.

New England Refinery Prices

(F. O. B. Boston and Fall River)

	Feb. 9	Feb. 2
U.S.Motor gasoline (gal.)	15⅝	14⅝
30-32 gas oil (gal.)	6¼	6
40-43 w. w. kerosene	7⅝	7¼
Fuel Oil (Bunker C) bbl	2.05	2.00

V. M. P. NAPHTHA

	Feb. 9 V.M.& P. Naphtha	Oleum Spirits
Chicago	19	16
Detroit	20.7	17.2
Milwaukee	19.7	16.2
Minneapolis	21	17.5
St. Louis	18.9	15.4
New York	20½	....

Petroleum Market Looks Better Than One Year Ago

CHICAGO, Feb. 7

SOME striking comparisons and contrasts in the general oil market situation are available now with one year ago. Crude prices today are about as they were a year ago, just a little higher now as to the light grades, the grading not being precisely the same.

There had just been a 2-cent tank wagon advance at his time last year and only the jobbers profited by it because of the softness of the Group 3 spot gasoline market. There were tank wagon advances totaling 3 cents late in January this year and the refiners are getting the benefit of all of it because of the firmness in their spot market.

The Chicago gasoline tank wagon price was 1 cent higher last February than now, but the spot refinery prices is about the same as then.

Spot kerosene was nearly 2 cents higher this time last year than it is now. Distillate and gas oil were in the neighborhood of the same price, but 24-26 refinery fuel was selling then for $1.20 as against $1.30, today's bottom. The strength of domestic fuels last February (which included kerosene in 1924) was due most likely to the difference in weather. Standard Oil Co. of Indiana territory was having the severest cold spell of 1924 in the early days of last February. Now the weather is dry and almost warm.

The striking contrasts are in gasoline. Early last February the jobbers of the middle west were selling nothing to speak of, on account of the cold and snow, and were begging refiners for relief from shipments under the terms of their marginal contracts because their storage was so full. Today they are interested in the market, with some storage vacant and goods moving well to a motoring public still using their machines on roads unhurt with coverings of sleet or drifts of snow.

Jobbers' margins last year this time were too wide. They invited competition and aroused public remonstrance. Refiners on the other hand were just beginning to "pay through the nose" for the jobber's wide profits. Today the refiners have at least a hopeful outlook on the year's business; and the jobbers, although obliged to abstain from extravagances on account of close margins, are not afraid of seeing all the hot-dog stands in the country turn to service stations over night, to divide their gallonage and damage their good will. On the whole, the comparison between this year and last is cheerful to contemplate.

U. S. Motor gasoline is firm currently at 12 cents and jobbers are all fairly willing to buy at 11¾ with only a few first-of-the-month distress cars moving at that figure. The market on "navy" has advanced from three quarters to one cent over the past week and appears to be still pointing upward.

Kerosene is a little firmer than last week at this time, due to some purchases made in Group 3 by major interests. The price, however, is virtually unchanged for several weeks at 4½ to 4¾ cents. Rumors in Chicago that other advances in crude oil and tank wagon prices may come soon, have helped kerosene for it is reasonable to believe that any further tank wagon boost would include refined oils.

Stove distillate is weaker at 4 to 4¼ cents now than at this time last week. Indeed it is doubtful if any of the material is moving at the high range. Four cents a gallon is the bottom figure quoted on goods through the Chicago market to the jobbing trade. Gas oil prices have slipped down the scale a little with distillate, the market being easier at 3¾ to 4 cents.

Withdrawal from the market by big consumers of fuel oil has had a tendency to weaken the price of that commodity, as well as the offerings of Louisiana crude fuels under their quotations of the early days of the month. It is thought in the Chicago trade also that the increased price of gasoline has stimulated refinery runs in certain sections, increasing the supply of fuel oil at the moment when the demand was beginning to wane.

Refinery fuel is obtainable for resale through the Chicago market at $1.30 and the range prevailing here is $1.30 to $1.35. Smackover and East Field crude fuels are only 5 cents a barrel cheaper here than 24-26.

Prices of Pennsylvania Gasoline Are up 1.5 to 2 Cents

CLEVELAND, Feb. 9.—Volume of gasoline trade in Pennsylvania is good and the warm weather of the last four days is expected to increase jobber buying later in the week. So far little increased buying has resulted from the spring-like days with fair skies.

Gasoline prices at the refinery have responded to the advance in tank wagon prices and higher crude costs and prices today for the various grades are 1½ to 2 cents higher than a week ago. Naphtha and gasoline blends advanced along with the regular gasolines.

Neutrals appeared firmer today after sagging a little last week. Motor oil blenders are purchasing only sparingly so far and better demand is expected from that source later in the month. Prices are still about 8 cents per gallon cheaper for the various grades than prices at this time last year although crude is only 50 cents cheaper for the Pennsylvania grade and 90 cents cheaper for the Bradford-Allegany grade.

Steam refined stocks have been marking time and waiting for greater activity. A fair amount of new business has been coming in and some refiners are still sold ahead for several weeks. Bright stocks have been higher and demand good. A few refiners who have been holding out for 6 cents for 122-124 A.m.p. white crude scale have shaded their quotations a trifle when resistence to the 6-cent level was encountered.

Fuel oil is still scarce. Refiners are asking 7 cents for 36-40 straw color oil on new business but some contracts for this grade are still to be filled at 7½ cent. In the Pittsburgh district some 36-40 Kentucky oil has been moved at 6½ cents. Kerosene is rather slow except in a few scattered spots and prices have been unable to advance with other products.

Kentucky

Gasoline prices have advanced ½ to 1½ cents per gallon in central Kentucky over the last week. Prices of heavy oils have been adjusted downward. Quotations today were: 58-60 gasoline, 13½ cents; 60-62, 14½; 62-64, 16; 64-66, 17, and 68-70, 17½. Kerosene, 42-44 water white, 7½; 34-38 gas oil, 5¾ and 24-26 fuel oil, 5 cents Gas oil demand has been good at Louisville, refiners with cracking plants finding it to be a cheaper charging oil at present than crude. Fuel oil markets at Louisville have been steady as refiners fear driving fuel users back to coal.

Price Cut Slows Benzol

NEW YORK, Feb. 9.—Demand for benzol was less spirited as a result of the reduction in price during the previous week, but leading distributors reported a fairly large movement. Stocks of benzol are beginning to pile up because of the heavy increase in production. Many of the large buyers feel that they will do well to hold for a while, and see just what course prices take.

Manufacturers of motor fuels were credited with a large part of the demand. There is a lot of competition in local circles, and a buyer with a firm order for a good sized quantity in hand could probably shade the new prices a trifle.

	Feb. 9	Feb. 2
Pure, tank cars, works	22-23	22-23
90%, tank cars, works	21	21

Above are industrial grades of benzol; motor grades run 2 cents under to 2 cents over gasoline tank wagon prices at point of delivery.

Tank Wagon, Service Station Markets
Gasoline and Kerosene

BELOW are given in cents a gallon the tank wagon price of gasoline without the special taxes levied against motor fuels by many states, the amount of the state taxes, the total tank wagon price, with tax added in and the service station or retail price of gasoline as quoted by the Standard Oil Companies in their various marketing territories. The right hand column is the tank wagon price of kerosene. By tank wagon price is meant the price to resale agents or dealers. Usually this price does not apply to sales to consumers from tank wagons.

Prices in effect February 9

S. O. NEW JERSEY TERRITORY

	Gasoline T.W.	Tax	Total	Oil S.S.	T.W.
Atlantic City, N. J.	19	0	19	*	13
Newark, N. J.	19	0	19	21	13
Annapolis, Md.	20	2	22	*	12
Baltimore, Md.	19	2	21	23	11
Cumberland, Md.	20	2	22	24	12.5
Washington, D. C.	19	2	21	23	12.5
Danville, Va.	20	3	23	*	13.5
Norfolk, Va.	20	3	23	25	13.5
Richmond, Va.	19	3	22	24	13.5
Roanoke, Va.	20	3	23	25	13.5
Petersburg, Va.	20	3	23	*	13.5
Charleston, W. Va.	18	2	20	22	13.5
Clarksburg, W. Va.	19	2	21	23	13.5
Keyser, W. Va.	19	2	21	*	13.5
Parkersburg, W. Va.	18	2	20	22	13.5
Wheeling, W. Va.	18	2	20	22	13.5
Williamsburg, W. Va.	19	2	21	*	13.5
Charlotte, N. C.	20	3	23	25	13.5
Hickory, N. C.	20	3	23	*	13.5
High Point, N. C.	20	3	23	*	13.5
Mt. Airy, N. C.	20	3	23	*	13.5
Salisbury, N. C.	20	3	23	*	13.5
Charleston, S. C.	20	3	23	25	14
Columbia, S. C.	20	3	23	25	14

*Dealers set own prices. S. O. New Jersey does not operate station.

S. O. NEW YORK TERRITORY

*New York City	21	0	21	23	13
Albany, N. Y.	21	0	21	23	13
Buffalo, N. Y.	21	0	21	24	13
Rochester, N. Y.	†21	0	†21	†25	13
Syracuse, N. Y.	21	0	21	23.5	12
Boston, Mass.	21	0	21	25	11
Augusta, Me.	21	1	22	25.5	13
Manchester, N. H.	21	2	23	26.5	13
Burlington, Vt.	21	1	22	25.5	13

*In steel barrels.

†At Rochester only, as far as is known, Standard sells two grades of gasoline, the above price applying to its Socony grade, and another grade being sold 2c below this price.

ATLANTIC REFINING TERRITORY

Pittsburgh, Pa.	19	0	19	*24	14
Philadelphia, Pa.	19	0	19	*24	14
Allentown, Pa.	19	0	19	*24	14
Erie, Pa.	19	0	19	*24	14
Scranton, Pa.	19	0	19	*24	14
Altoona, Pa.	19	0	19	*24	14
Dover, Del.	19	2	21	24	14
Wilmington, Del.	19	2	21	24	14
Providence, R. I.	21	0	21	25	13
Springfield, Mass.	21	0	21	25	13
Worcester, Mass.	21	0	21	25	13
Hartford, Conn.	21	1	22	26	12
New Haven, Conn.	21	1	22	26	13
Boston, Mass.	21	0	21	25	11

*Contains 2-cent tax collected by retail dealer and paid by him directly to state.

S. O. OHIO TERRITORY

All Ohio points	17	0	17	19	15

S. O. KENTUCKY TERRITORY

Lexington, Ky.	18	3	21	24	14
Louisville, Ky.	18	3	21	23	12
Covington, Ky.	15	3	18	21	14
Clarksdale, Miss.	18	3	21	24	12
Jackson, Miss.	18	3	21	24	10
Natchez, Miss.	17.5	3	20.5	23.5	11.5
Vicksburg, Miss.	17.5	3	20.5	23.5	11.5
Birmingham, Ala.	19	2	21	24	14.5
Mobile, Ala.	18	2	20	23	12.5
Montgomery, Ala*	20	2	22	25	15.5
Atlanta, Ga.	20	3	23	26	13
Augusta, Ga.	20	3	23	26	13.5
Macon, Ga.	20	3	23	26	14.5
Savannah, Ga.	18	3	21	24	13
Jacksonville, Fla.	18	3	21	24	13
Miami, Fla.	20	3	23	26	14.5
Tampa, Fla.	18	3	21	24	13
Pensacola, Fla.	18	3	21	24	13.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

S. O. LOUISIANA TERRITORY

	Gasoline T.W.	Tax	Total	Oil S.S.	T.W.
Camden, Ark.	19	4	23	25	13
Little Rock, Ark.	19	4	23	25	11
West Helena, Ark.	19	4	23	25	12
Alexandria, La.	18.5	2	20.5	22.5	13
Baton Rouge, La.	17	2	19	21	11.5
Lake Charles, La.	18.5	2	20.5	22.5	13
New Orleans, La.	18.5	2	20.5	22.5	11
Shreveport, La.	18.5	2	20.5	22.5	13
Bristol, Tenn.	21	2	23	25	13.5
Chattanooga, Tenn.	19.5	2	21.5	23.5	14.5
Knoxville, Tenn.	20.5	2	22.5	24.5	15
Nashville, Tenn.	19.5	2	21.5	23.5	13.5
Memphis, Tenn.	18	2	20	22	14

MAGNOLIA PETROLEUM TERRITORY

Muskogee, Okla.	13.5	2	18	21	11
Oklahoma City	13.5	2	18	21	11
Tulsa, Okla.	13.5	2	18	21	11
Fort Smith, Ark.	17.5	4	21.5	25.5	11
Little Rock, Ark.	19	4	23	25	11
Texarkana, Ark.	17	4	21	24	10
Dallas, Tex.	14	1	15	19	11
El Paso, Tex.	16	1	17	20	11
Fort Worth, Tex.	14	1	15	19	11
Houston, Tex.	14	1	15	19	11
San Antonio, Tex.	14	1	15	19	11

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city, the 4c state tax applies.

S. O. INDIANA TERRITORY

Chicago, Ill.	†17	0	†17	19	11
Decatur, Ill.	16.2	0	16.2	18.2	11.5
E. St. Louis, Ill.	15.1	0	15.1	17.35	10.6
Joliet, Ill.	16.4	0	16.4	18.4	11.7
Peoria, Ill.	16	0	16	18	11.5
Quincy, Ill.	16.2	0	16.2	18.2	11.3
Indianapolis, Ind.	16.2	2	18.2	20.2	11.7
Evansville, Ind.	16	2	18	20	11.5
South Bend, Ind.	16.4	2	18.4	20.4	11.9
Detroit, Mich.	16.8	0	16.8	18.8	12.2
Grand Rapids, Mich.	16.7	0	16.7	18.7	12.1
Saginaw, Mich.	16.9	0	16.9	18.9	12.3
Madison, Wis.	16.3	0	16.3	18.3	11.5
Milwaukee, Wis.	16.1	0	16.1	18.1	11.3
La Crosse, Wis.	17.2	0	17.2	19.2	12.4
Minneapolis, Minn.	17.2	0	17.2	19.2	12.6
Duluth, Minn.	17.5	0	17.5	19.5	12.6
Mankato, Minn.	17.1	0	17.1	19.1	12.4
Des Moines, Iowa	16.5	0	16.5	18.5	11.9
Davenport, Iowa	16.5	0	16.5	18.5	11.9
Sioux City, Iowa	16	0	16	18	11.5
Mason City, Ia.	16.5	0	16.5	18.5	11.9
St. Louis, Mo.	**15.6	2	17.6	17.9	11
Kansas City, Mo.	††16.9	2	18.9	20.9	10.3
St. Joseph, Mo.	**16	2	18	20	10.9
Fargo, N. D.	17.9	1	18.9	20.9	14.6
Grand Forks, N. D.	18.1	1	19.1	21.1	15.9
Minot, N. D.	18.9	1	19.9	21.9	14.6
Pierre, S. D.	18	2	20	*	13.1
Hurson, S. D.	18	2	20	22	13.1
Wichita, Kans.	15.8	0	15.8	17.8	9.8
Bartlesville, Okla.	14.9	2½	17.4	19.4	9.9

†Dumps of 100 or more gallons at 16c per gallon.
*S. O. Indiana does not operate station.
**Includes city tax of ½c.
††Includes city tax of 1c.

S. O. NEBRASKA TERRITORY

Crawford, Neb.	17	0	17	*	12.25
Omaha, Neb.	14	0	14	16	11.5
McCook	17.75	0	17.75	19.75	13
Norfolk	16.75	0	16.75	18.75	12
North Platte	17.75	0	17.75	19.75	12.75
Scotts Bluff	17.25	0	17.25	19.25	12.25

*Standard has no service station here.

CONTINENTAL OIL TERRITORY

Denver, Colo.	17	2	19	21	13.5
Pueblo, Colo.	17	2	19	21	13.5
Casper, Wyo.	17	1	18	20	12
Cheyenne, Wyo.	18.5	1	19.5	21.5	13.5
Butte, Mont.	19	2	21	23	15
Helena, Mont.	21	2	23	25	16
Salt Lake City, Utah	20.5	2½	23	25	17
Boise, Ida.	21.5	2	23.5	25.5	19
Albuquerque, N. M.	21.5	1	22.5	25.5	15.5

S. O. CALIFORNIA TERRITORY

Phoenix, Ariz.	20	3	23	26	21.5
Los Angeles, Cal.	13.5	2	15.5	18.5	15.5
Fresno, Cal.	15.5	2	17.5	20.5	17.5
San Francisco, Cal.	15	2	17	20	15.5
Reno, Nev.	18.5	2	20.5	23.5	19
Portland, Ore.	15	3	18	21	16.5
Seattle, Wash.	15	2	17	20	16.5
Spokane, Wash.	19	2	21	24	20.5
Tacoma, Wash.	15	2	17	20	16.5

Week's Price Changes
Tank Wagon Market

Gasoline Advances

Standard of New Jersey—T.w. and s.s. 2 cents through territory, Feb. 3.

Standard of New York—T.w. 1½ cents, s.s. 2 cents generally through New York and New England, Feb. 4.

Atlantic Refining—T.w. and s.s., 2 cents. Pennsylvania and Deleware, Feb. 3. T.w. 1½ cents, s.s. 2 cents through New England, Feb. 4.

Standard of Ohio—T.w. and s.s. 1 cent, Feb. 4.

Standard of Louisiana—T.w. and s.s. 2 cents Feb. 4.

Standard of Kentucky—T.w. and s.s. 2 cents through territory except Kentucky, Feb. 6. T.w. and s.s. advanced from 1 to 2 cents in Kentucky only, Feb. 9; Louisville advanced 2 cents, Lexington and Covington 1 cent.

Magnolia Petroleum—T.w. and s.s., 1 cent, Houston and El Paso, and t.w. 1 cent, s.s., 2 cents at Ft. Worth and San Antonio, Feb. 4. T.w. and s.s. 1 cent, at Oklahoma City, Muskogee, Tulsa, Feb. 4. T.w. and ss., 3½ cents at Ft. Smith, 2 cents at Little Rock, and 2 cents at Texarkana, Feb. 5. T.w. 1 cent, s.s 2 cents, at Dallas, Feb. 9.

Continental Oil—T. W. and s.s 1 cent, Colorado, Wyoming, Montana, and s.s. only 1 cent at Albuquerque, Feb. 2 T.w. and s.s. 1 cent Colorado, Wyoming, Montana and New Mexico, and 2 cents in Utah, Feb. 6. T.w. and s.s. 1 cent, Idaho, Feb 5, and 1 cent on Feb. 6.

Standard of California—T.w. and s.s. 2 cents, through territory, Feb. 4.

Canadian Advances—T.w. and s.s. 2 cents, Jan. 23, and 2 cents, Feb. 2.

Kerosene Advances

Standard of Ohio—1 cent, Feb. 4.

Magnolia Petroleum—1 cent all Texas points, Feb. 6.

Canadian Gasoline Prices

Posted by Imperial Oil, Ltd.
(Per Imperial Gallon, which is 1.2 American Gallons)
Prices in effect Feb. 9, 1925

ONTARIO

	Gasoline T.W.	Tax	Total	Oil S.S.	T.W.
Toronto	24.5	0	24.5	28	20
Ottawa	25.5	0	25.5	29	21
Cochrane	29.5	0	29.5	33	24.5
Ft. William	27.5	0	27.5	31	22.5

MANITOBA

Winnipeg	27.5	1	28.5	32	22.5

SASKATCHEWAN

Regina	30.5	0	30.5	34	25.5

ALBERTA

Edmonton	32.5	2	34.5	38	27.5
Calgary	31.5	2	33.5	37	26.5

BRITISH COLUMBIA

Vancouver	23	3	26	30	23

QUEBEC

Montreal	24.5	2	26.5	30	20
Quebec City	26.5	2	28.5	32	22

NEW BRUNSWICK

St. John	27.5	0	27.5	31	23
Moncton	29.5	0	29.5	33	25

NOVA SCOTIA

Halifax	27.5	0	27.5	31	23
Sydney	29.5	0	29.5	33	25

PRINCE EDWARD ISLAND

Charlottetown	27.5	2	29.5	31	23

Note: In districts surrounding these points, 1c additional is added to city price.

Complete Export Markets

New York **Gulf Coast** **California**

Export Agents at New York Halt Buying as Prices Advance

NEW YORK, Feb. 9
By Special Correspondent

ADVANCING prices brought about a dearth of sizeable buying orders. Inquiries were numerous, there being four from the continent for mixed cargoes of gasoline and kerosene, but refiners' prices are from 1 to 2 cents a gallon higher than buyers. Export prices for gas oil, gasoline and many of the lubricants were higher.

A large British buyer was inquiring for a cargo of 35,000 barrels of gasoline and kerosene. Most of the refiners were quoting 6¼ cents for prime; 7¼ cents for water white and 14½ cents for U.S. Motor. While one large Independent is still negotiating with this factor, it is doubtful whether it will be closed. As one big refiner put it, an export buyer will come into the market bidding ½ cent below the seller's price, but when he finds there is nothing available at his own price, cables to his principal who agrees to pay the ½ cent difference. By the time the refiner is again approached, the price has advanced ½ cent again, and so on.

Cased gasoline was in slightly better demand, but orders were reported for less than 10,000 cases. One refiner received four orders for 2000 cases each from African buyers. These are to be shipped early in March. There was an inquiry from Spain for 20,000 cases of U. S. Motor, but buyer's ideas were much below refiners' and this failed to materialize. The steady advance in the tank wagon prices has tended to increase the number of export inquiries but foreign buyers like local jobbers are more reluctant to anticipate, feeling that prices have advanced more sharply than justified.

Kerosene Is Firmer

Kerosene was a shade firmer. Prime white was well held at 6¼ cents, and water white at 7¼ cents, at the refinery. Export inquiries were more numerous than the preceding week, one factor reporting two inquiries for cargoes of 35,000 barrels each for March shipment to the United Kingdom and Germany.

There is a good consignment movement which tends to keep stocks down. French buyers were inquiring for two cargoes of prime and water white for February-March shipment from New York, but neither of these was booked. Japanese buyers were inquiring for cased kerosene, but were bidding about ½ cent under refiner's ideas.

New York jobbers are purchasing cautiously.

Bunker oil was stronger. There is very little demand for spot oil, and almost the entire week's activity was confined to delivering on contracts, but nevertheless, prices showed an upward tendency in sympathy with crude oil and refiners were quoting grade C oil at $1.80 a barrel at the refinery. Movement of Diesel oil is fairly large, and refiners are quoting from $2.10 to $2.70 a barrel at the refinery with buyers showing practically no interest at the outside figure. Export demand is lagging.

Gas oil is firmer. For 36-40 the price is firmly established at 5¾ to 6¾ cents a gallon. Export inquiries have been far more numerous during the last few days, but most of this business is being booked by Gulf refiners. For 82-34 the asking price was steady at 5½ cents a gallon. Domestic demand is good and refiners are offering very sparingly.

Lubes Are Higher

Lubricating oils were higher. Leading refiners are now demanding 31 cents a gallon for Pennsylvania 600 steam refined in barrels, New York. Demand for this oil has improved considerably and stocks on hand are small. Four sales of 500 barrels each were reported by a large Independent. Two were for French account; one for British and the other for German. Spindle oils were quiet but well maintained. Paraffin oils are marking time.

Waxes are firmer, although unchanged in price. One small Independent reported the sale of 500 tons of white crude scale wax for February shipment to the United Kingdom. Demand for fully refined has improved considerably the past few days while match wax is rather dull and unchanged.

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being Products made from Domestic (including California) and Mexican Crudes.

	Feb. 9	Feb. 2
U. S. Motor Gasoline, Tank Cars Delivered	–15½	–14¼
U. S. Motor Gasoline, Tank Cars Bayonne	–14½	–13½
Kerosene, 45-150 W W Tank, Cars Del'd	.08¼	.08
Grade C Bunker, f.o.b.N.Y.	1.80	1.80
Diesel Oil f.o.b. Refinery	2.10–2.70	2.10
Gas Oil, 36-40, Bulk, refinery	.05¾–06	.05¾–.06

New York Export Market

Prices below are averages of actual sales by local exporting Agencies

LUBRICATING OILS

The following prices are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS BBLS.	Feb. 9		Feb. 2
Penna. Filtered D 600	–35		–35
Penna. Filtered E 600	34 –35	33	–35
Unfiltered 600 s.r.	–31	30	–31
Unfiltered 650 s.r.	–37	36	–37
600 flash s. r.	–43	43	–45
Western 600 s. r.	–16		–15
Bloomless 30-31 grav.	–25		–25
RED PARAFFIN (bbls.)			
300 vis. at 100°F	24		23¾
250 vis. at 100°F	23		23
175 vis. at 100°F	–22¾		–22¾
High Viscosity Paraffin	30		29
.885 s.g. pale 100 vis. at 100°F	16½	15	–15½
SPINDLE (bbls.)			
200 vis. at 100°F. Pale	22¾		21¾
180 Pale	20		20
150 Pale	18		17
BLACK OIL (bbls.)			
25-30 cold test	14 –15¾	14	–15¾
15 cold test	13 –15¾	13	–16¾

MEDICINAL OILS

(Cooperage Basis)

(Penna. Stocks)

Domestic .875-.885 s.g. drums	1.00–1.08	1.00–1.08
Domestic .865-.870 s.g. drums	75– 80	75– 80
Russian .885-.890 s.g. 325-330 vis. drums	1.25	1.25

WAXES

(Penna. Stocks)

(F. A. S. Carload Lots)

WHITE CRUDE SCALE	Feb. 9	Feb. 2
122-124 A. m. p.	–05¾	–05¾
124-126 A. m. p.	–05¾	–05¾
MATCH		
105-108 A. m. p.	06	06
111-115 A. m. p.	06	06
FULLY REFINED		
118-122 A. m. p.	06	06
123-125 A. m. p.	06¼	06¼
125-127 A. m. p.	06¼	06¼
128-130 A. m. p.	06½	06½
130-132 A. m. p.	06¾	06¾
133-135 A. m. p.	07¼	07¼
SEMI REFINED		
122-124 A. m. p.	05¾	05¾
YELLOW CRUDE SCALE		
124-126 A. m. p.	05¾	05¾

PETROLATUMS

(Penna. Stocks)

Snow White	12¾	12¾
Lily White	10¾–11	10¾–11
Cream Petroleum Jelly	07¾	07¾
Veterinary	03¾	03¾
Light Amber	07¾	07¾
Dark Amber	03¾	03¾
Dark Green	03¾	03¾

Gas Oil Active at New Orleans; Gasoline Demand Improves

By Special Correspondent
NEW ORLEANS, Feb. 9

EXPORT demand centered on gas oil last week. One leading Independent sold a cargo of 45,000 barrels of 30 gravity plus dark oil to a United Kingdom buyer for March shipment out of the Gulf at 5 cents a gallon. This refiner was also working on a similar cargo for German account and expects to close the deal early this week. There was an unconfirmed report of a sale of 35,000 barrels of 26-28 gravity transparent oil at 5¾ cents for March shipment to the United Kingdom. This oil is reported to have been sold by a leading refiner.

For 32 gravity plus dark oil the price ranged from 5 to 5½ cents a gallon with very little available at the inside price. Apparently Europeans are finding more difficulty in purchasing Galician gas oil, and are anxious to cover their requirements as soon as possible. A French buyer was inquiring for a cargo of 28,000 barrels of 26-28 gas oil for March shipment but was bidding around 4¾ cents, and refiners showed no interest at this figure. Many find all they can do in taking care of their domestic contracts.

Diesel Demand Improves

Export demand for Diesel oil showed improvement. While no confirmed sales were reported, it is understood that one of the leading refiners sold two cargoes of 24-26 gravity oil around 5 cents a gallon for February-March shipment to France.

Bunker oil was stronger at $1.65 to $1.75 per barrel f. o. b. New Orleans, and comparatively little was offered at these prices. Mexican crude is strong and sellers are quoting $1.35 per barrel for heavy Panuco at Tampico, taxes to be added. Grade C bunker oil is $1.55 per barrel f. o. b. Tampico, including taxes. There was an inquiry from Continental Europe for a cargo of 56,000 barrels of grade C oil, but no sales were reported.

Gasoline Demand Better

Demand for gasoline was slightly better than the preceding week although only one cargo sales was reported. This included 42,000 barrels of U. S. Motor at 12 cents a gallon for late February-March shipment to the continent. The seller's name was not disclosed. At the close of the week, most refiners were asking from 12½ to 13 cents for U. S. Motor and 16½ to 17 cents for 64-66 gravity. There were three inquiries for cargoes of U. S. Motor and 64 for March shipment to the United Kingdom, but inquirers' ideas were from ½ to 1½ cents under refiners.

Cased gasoline demand was a little more spirited. One leading Independent reported the sale of 25,000 cases of U. S. Motor for March shipment to the Orient, presumably Japan, and 25,000 cases for the same shipment to the Near East. South American buyers showed very little interest in the market last week.

Kerosene Is Firm

Kerosene held firm. No sales were reported. Prime white is still quoted at 6 cents a gallon and water white at 7 cents. Stocks of both are moderate, and owing to the spirited inquiry from the United Kingdom and Scandinavia, some good sized orders are expected to appear here shortly. German buyers have been inquiring for smaller quantities, and are not interested in cargoes at present.

Cased kerosene prices were steady. Prime white is held at $1.60 and water white at $1.70 a case. The movement in cased goods was mainly against standing contracts. Chinese buyers have been inquiring more actively but are reluctant to purchase ahead. Demand from South America is disappointing.

Lube Demand Light

Lubricating oils reflected the recent advance in crude oil, but demand from the other side was very light, and no cargo sales were reported. Most of the orders reported were for a few hundred barrels of zero cold test oils for immediate shipment to the continent and United Kingdom. A French buyer was inquiring for a cargo of assorted lubes early in the week but disappeared by Thursday and as far as could be learned no business developed.

Waxes Are Firm

Waxes were firm. Demand is slightly more spirited and the outlook is a little brighter. Stocks on hand are moderate. There is a good steady shipment to Latin America and other Catholic countries where large quantities of candles are consumed.

Pacific Export Market

(Cargo lots quotations at seaboard, San Francisco Bay and Los Angeles refinery points, f.o.b. docks.)

	Feb. 9	Feb. 2
Gasoline, U. S. Motor—54°—56°	10¾- 11¾	08¾- 09¾
Gasoline—U. S. Motor blends and special cuts	11 - 12¾	09 - 10¾
Gas Oil, 24°—30°B per bbl.	$1.85	$1.65
Diesel Oil, 27°B-plus per bbl.	$1.85	$1.65
Bunker Oil, 14°—18°B per bbl.	$1.60	$1.40
Fuel Oil, 14°—18°B per bbl.	$1.60	$1.40
Kerosene, W. W. 40°—42° B per gal., 125-150 flash & test	05 -06¾	05¾-06¾
Cased Goods		
Gasoline, U. S. Motor	$2.70	$2.50
Kerosene, W. W. 40°—42° B per case, flash test 125-150	$1.55- 1.65	$1.55- 1.65

N. Y. Export Quotations

Furnished by big exporting oil companies. No actual sales. Record for statistical purposes only.

Illuminating Oils
Standard Oil of New Jersey

	Feb. 9	Feb. 2
Bulk, gal., Bayonne	6.50	6.50
Barrels, gal., Bayonne, cargo	13.50	13.50
Cases, gal., Bayonne	16.90	16.90

Prices for water white oil (150 test) are 1 cent higher than those for standard white.

Gasoline-Naptha
(Cents per Gallon)

U. S. Motor, dead bulk	15.00	14.00
U. S. Motor, cases	29.15	28.15
Export Naptha bulk	17.75	16.75
*62-63 deg. bulk	19.00	18.00
66-68 deg. bulk	20.50	19.50

*Grade changed from 64-66 to 62-63 Jan. 9.

Tide Water Oil Company
(f. o. b. Bayonne)

58-59 deg. bulk	16.00	15.50
58-59 deg. cases	29.65	28.65
Export grade, U. S. Motor Specifications bulk	15.00	14.00
63-65 deg. bulk	19.00	18.00
68-72 deg. bulk	21.50	20.50

	Bulk	Barrels	Cases
Standard white 110	6.50	13.50	16.90
Water white 150	7.50	14.50	17.90

The Texas Company

Gasoline, cases		29.15	28.15
Kerosene	**Bulk**	**Barrels**	**Cases**
Standard White	6.50	13.50	16.90
Prime White	7.00	14.00	17.40
Water White	7.50	14.50	17.90

Gulf Export Market

(Actual Sales Prices)
Gasoline

	Feb. 9	Feb. 2
U. S. Motor, Bulk	12½-.13	12 -.12½
64-66, Bulk	16½- 17	-.16
U. S. Motor, Cases (cargo lots)	2.70	2.60
64-66, Cases (cargo lots)	3.00	2.90
KEROSENE		
Water White, bulk	07 -.07¼	.07-.07¼
Prime White, bulk	06 -.06¼	.06-.06¼
Water White, cases (cargo lots)	1.70	1.70
Prime White, cases (cargo lots)	1.60	1.60
GAS AND BUNKER OILS		
26-28, gravity, bulk	05½-05¾	-05
32 plus, bulk	-05¾	-05
Grade C, Bunker oil	-1.70	-1.70
MEXICAN CRUDE AND BUNKER OILS		
*Heavy, f o b Tampico, Taxes to be added	1.35	1.35
Mexican Grade C, Bunker oil F.O.B. Tampico Taxes Paid	1.55	1.55
Mexican C, Bunker oil New Orleans	1.65	1.60

Lubricating Oils

SOUTH TEXAS

(Viscosity at 100°F; cold test 0)
(Tanker, F. O. B. Houston)

	Feb. 9	Feb. 2
100 Vis. No. 2 Unfilt. Pale	09	09
150 Vis. No. 2½ Unfilt. Pale	12	12
200 Vis. No. 3 Unfilt. Pale	14¼	14½
300 Vis. No. 3 Unfilt. Pale	17	17
500 Vis. No. 3½ Unfilt. Pale	19	19
750 Vis. No. 4 Unfilt. Pale	24½	24½
200 Vis. No. 5½ Red Oil	13½	13½
300 Vis. No. 5½ Red Oil	15½	15½
500 Vis. No. 6 Red Oil	17½	17½
750 Vis. No. 6 Red Oil	22½	22½

*Nominal

California Gasoline and Fuel Higher

LOS ANGELES, Feb. 6.—Advances in the prices of crude oil, gasoline, engine distillate and fuel oils were made throughout Standard Oil Co. of California territory Feb. 4. The advances in crude range from 25 cents per barrel for the lowest grade up to 58 cents per barrel for the highest grade. Gasoline was advanced 2 cents per gallon.

A new schedule of fuel oil prices sets the rate 25 cents per barrel in advance of previous quotations at all points except San Diego, El Segundo, Los Angeles and San Pedro where the advance is 20 cents per barrel.

Diesel oil, 27 degree plus, has been advanced from $1.65 to $1.85. No changes in the price of kerosene or lubricating oils were made. The market, however, on natural gasoline automatically advances 2 cents with the advance of gasoline.

North Texas Refinery Markets Active

WICHITA FALLS, Feb. 7.—North Texas markets have been unusually active during the last week. Gasoline led fuel oil, gas oil and kerosene in price advances.

Drilling activity in the north Texas fields has produced a heavy demand for fuel oil for boilers. Railroads have been buying heavily at $1.45 to $1.50 per barrel. Stocks were not large and refiners are now asking as high as $1.55 per barrel for fuel on short hauls. Little or no fuel is moving against Group 3 into the north because of the high level of local prices.

Refiners have been well sold up on gasoline and trading has been largely on a future basis. Atlantic Refining Co. bought 50 cars of 64-66, 375 end point gasoline yesterday at 15 cents per gallon and Sinclair Refining Co. was offered a little less without success.

One refiner in Wichita Falls sold 100 cars of U. S. Motor gasoline today for delivery over March at 13 cents per gallon. Several large sales of this character have been made recently. For delivery over the remainder of February refiners are asking 12½ cents per gallon. Spot goods is selling at around 12 cents.

The position of 60-62 is much like that of 64-66. The new supply is small since refiners have obligated most of their production. Current spot sales are being made at 13½ to 13¾ cents per gallon.

Kerosene is somewhat slow but is generally held at 4½ cents per gallon. Stove distillate is in poor demand but gas oil has moved to 3⅞ cents per gallon and kept distillates from falling below that point.

In anticipation of further advances in posted crude prices, the spot oil market has been advancing rapidly. Before the last posting spot oil was quoted at $2.15 per barrel and the market promptly rose to $2.50 per barrel after the advance.

Crude Oil Prices All Fields

EASTERN FIELDS

	1925 Feb. 9	1924 High		1924 Low		1923 High		1923 Low	
Bradford Allegany	$3.60	Jan.30	$4.50	Aug.21	$2.85	Feb.15	$4.25	Nov.13	$2.60
Other Pennsylvania	3.50	Jan.30	4.00	Aug.5	2.75	Feb.15	4.00	Nov.13	2.35
Cabell	1.95	Mar.10	2.20	Jan.1and Aug.5	1.45	Feb.15	2.76	Nov.13	1.20
Corning	1.95	Mar.10	2.15	Jan.1	1.40	Feb.15	2.30	Nov.14	1.25
Somerset	2.05	Mar.10	2.30	Jan.1	1.40	Feb.15	2.55	Nov.13	1.15
Somerset Light	2.20	Mar.10	2.50	Jan.1	1.55	Feb.15	2.80	Nov.13	1.30
Ragland	1.20	Mar.10	1.10	Jan.1	.85	Feb.15	1.10	July 10	.75

Somerset oil run prior to Oct. 1, 1923, takes price of 6 cents lower than above quotations.

CENTRAL STATES FIELDS

Wooster	$1.95	Mar.8	$2.15	Jan.1,and Sept.18	$1.40	Feb.19	$2.50	Nov.9	$1.25
Lima	2.08	Mar.8	2.28	Jan.1	1.53	Feb.19	2.58	Nov.9	1.43
Indiana	1.88	Mar.8	2.08	Jan.1	1.33	Feb.19	2.38	Nov.9	1.23
Princeton	1.87	Mar.8	2.07	Jan.1	1.32	Feb.19	2.37	Nov.8	1.22
Illinois	1.87	Mar.8	2.07	Jan.1	1.32	Feb.19	2.37	Nov.8	1.22
Plymouth	1.40	Mar.8	1.45	Jan.1	.70	Feb.19	1.75	Nov.9	.60
Canadian Petrolia	2.48	Mar.8	2.68	Jan.1	1.93	Feb.19	2.98	Nov.9	1.83

MID-CONTINENT AND NORTH TEXAS FIELDS

Below 30	$1.15	Currie	$1.80
30-32.9	1.35	Mexia	1.80
33-35.9	1.55	Powell	1.80
36-38.9	1.70		
39-41.9	1.85		
42 and above	2.00		

Humble's Prices
Moran Field Texas

Below 30	$1.15	Wortham	$1.80
30-32.9	1.35	36 and above	1.70
33-35.9	1.55	Richland	1.80

Magnolia's Price Schedule
North and North-Central Texas, Okla., and Kan.

Below 28	$ .90	Corsicana, light, Powell, Mexia	$1.80
28-30.9	1.15	Corsicana, heavy	.90
31-32.9	1.35	Thrall	1.00
33-35.9	1.55		
36-38.9	1.70		
39-41.9	1.85		
42 and above	2.00		

NORTH LOUISIANA—ARKANSAS FIELDS

Caddo, 38 degrees and above	$1.80	De Soto	1.65
do 35 to 37.9	1.70	Crichton	1.45
do 32 to 34.9	1.60	Bellevue	1.75
do below 32	1.45	Smackover 28 and above	1.45
Homer, 35 and above	1.55	do 27-27.9	1.40
do 33 to 34.9	1.45	do 26-26.9	1.35
do 31 to 32.9	1.35	do 25-25.9	1.25
do below 31	1.20	do below 25	1.15
Haynesville, 33 and above	1.45	Stephens 26 and above	1.35
do below 33	1.35	do below 26	1.15
El Dorado 33 and above	1.45	Cotton Valley	1.25
do below 33	1.35		
Bull Bayou, 38 and above	1.60		
do 35 to 37.9	1.45		
do 32 to 34.9	1.30		

GULF COASTAL FIELDS

	1925 Feb. 9	1924 High		1924 Low		1923 High		1923 Low	
Spindletop	$1.75	Apr.1	$2.00	Jan.1 and Sept.17	$1.25	Mar.15	$1.75	Aug.18	$1.00
Goose Creek "A"	1.75	Apr.1	$2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Goose Creek "B"	1.50	Apr.1	1.70	Sept.17	1.05	Mar.15	1.50	Aug.18	1.00
Sour Lake	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Humble	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Hull "A"	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Hull "B"	1.50	Apr.1	1.70	Jan.1 and Sept.17	1.00	Mar.15	1.30	Jan.1	.80
West Columbia	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Edgerly	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Vinton	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Jennings	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Saratoga	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25	Mar.15	1.75	Aug.18	1.00
Orange "A"	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25				
Orange "B"	1.50	Apr.1	1.70	Jan.1 and Sept.17	1.00				
Pierce Junction "A"	1.75	Apr.1	2.00	Jan.1 and Sept.17	1.25				
Pierce Junction "B"	1.50	Apr.1	1.70	Jan.1 and Sept.17	1.00				

WYOMING FIELDS

Elk Basin	$1.65	Mar.10	$1.65	Jan.1	$ .95	Feb.17	$2.10	Nov.9	$ .95
Grass Creek	1.55	Mar.10	1.95	Jan.1	.95	Feb.17	2.10	Nov.9	.95
Big Muddy	1.30	Mar.10	1.50	Jan. 1	.45	Feb.17	1.65	Nov.9	.45
Salt Creek	1.30	Mar.10	1.60	Jan.1	.60	Feb.17	1.65	Nov.9	.60
Lance Creek	1.60	Mar.10	1.90	Jan.1	.90	Feb.17	2.10	Nov.9	.80
Rock Creek	1.40	Mar.10	1.70	Jan.1	.60	Feb.17	1.75	Nov.9	.60
Osage	1.60	Mar.10	1.90	Jan.1	.90	Feb.17	2.10	Nov.9	.80
Cat Creek, Mont	1.65	Mar.10	1.95	Jan.1	.95	Feb.17	2.10	Nov.9	.95
Sunburst, Mont	1.12	Mar.10	1.05	Jan.1	70	Feb.17	1.50	June 6	.70

CALIFORNIA

14-19.9	$1.25	25-25.9	$1.44	30-30.9	$1.64	
20-20.9	1.27	26-26.9	1.48	31-31.9	1.68	
21-21.9	1.30	27-27.9	1.52	32-32.9	1.72	
22-22.9	1.33	28-28.9	1.56	33-33.9	1.76	
23-23.9	1.36	29-29.9	1.60	34-34.9	1.80	
24-24.9	1.40			35 and above	1.85	

ROSECRANS FIELD—EFFECTIVE SEPT. 24, 1924

36-36.9	$1.92
and for each increase of one full degree above 36° gravity, up to and including 41.9° gravity, 8 cents per barrel additional	
2 and above	$2.40

Cased Goods Shipments From Los Angeles

LOS ANGELES.—The following table compiled by the Independent Petroleum Marketers Association shows the amount of cased gasoline and kerosene shipped from Los Angeles harbor during 1924, and the destinations:

Gasoline

Countries	Total Gallons
South America	56,382
Japan	1,221,714
China	290,100
British Columbia	1,510
Philippine Islands	65,000
Australia	359,076
Total	1,993,782

Kerosene

South America	192,600
Japan	60,260
China	2,592,555
British Columbia	1,410
Hawaii	42
Philippine Islands	246,600
Australia	1,200
Total	3,094,667

During 1924 bulk shipments totaling 3,379,813 tons and cased shipments totaling 29,757 tons were moved from Los Angeles harbor in foreign trade. In addition there was a total of 11,911,329 tons of bulk petroleum products shipped from the harbor in other points in the United States. The grand total of all petroleum shipments from the harbor was 15,345,899 tons equivalent to 79.4 per cent of all the shipping done.

Mild Week in Prospect But Rain Likely

CHICAGO, Feb. 8.—Considerable cloudiness and rather frequent rains or snows are in prospect for the Standard of Indiana territory this week. West of the Mississippi the latter part of the week may be fair.

The entire territory is warned of cold during the early days of the week. In the western portion there will be a second period of low temperatures late in the week but in the south and east mild weather, normal or above, can be expected after Tuesday. Newspaper dispatches relate that migratory birds are leaving the Gulf country which is supposed to foretell an early spring.

Sunday and Monday of last week rain and snow fell in much of the eastern half of the United States. These light falls of rain dampened the eastern parts of S. O. Indiana territory, but the rest of the week was fair throughout the whole region drained by the Mississippi river. Only in Oregon and Vermont were sub-zero temperatures recorded since last Sunday, Feb. 1.

In the general environs of Chicago January was an exceptionally mild month, the general summary issued from the local weather office shows. The month was characterized by moderate temperatures, deficient precipitation and moderate wind movements.

TULSA.—W. R. Ramsey of Oklahoma City, producer, is planning the erection of a gasoline plant in the Wewoka field.

Refiners', Compounders' Supplies

Following are the average market prices for the week on materials used by refiners and Compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

		Feb. 9	Feb. 2
Soda Ash light 58% bags	cwt.	$1.38	$1.38
Silicate of Soda 60 deg. drums	cwt.	1.70	1.70
Sal Soda wks	cwt.	1.10–1.25	1.10–1.25
Caustic Soda 76% solid	cwt.	3.10	3.10
Chloride of Lime works	cwt.	1.90–2.10	1.90–2.10
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point	per ton	9.50–11.00	9.50–11.00

Compounders' Supplies (Open Market)

Vegetable Oils—			
Linseed carloads spot	gal.	.1.21	.1.20
February		.1.21	.1.20
March-April		.1.22	.1.21
May-June		.1.23	.1.22
Tanks, spot		.1.15	.1.14
Less carload spot	gal.	.1.24	.1.23
Less than 5 bbls. spot		.1.27	.1.26
Boiled, tank spot		.1.17	.1.16
Boiled, carloads spot	gal.	.1.23	.1.22
*Soya Bean spot, tanks	lb.	.12	.12
Animal Oils—			
English Degras	lb.	.04¾	.04¾
Domestic Degras, bbls., carloads	lb.	.04¼	.04¾
*Horse	lb.	.10¾	.10½
Oleic Acid—			
Dist	lb.	.11½	.11½
Saponified	lb.	.11½	.11½
Lard Oils—			
Prime Winter Strained	1 to 1½ ffa. 40‡45c.t.	lb. .18¾	.19
Extra Winter Strained	2 to 4½ ffa. 40/45c.t.	lb. .16	.16¾
Extra	4 to 5 ffa. 40/45c.t.	lb. .15½	.15½
Extra No. 1	7 to 10 ffa. 40/50c.t.	lb. .14¼	.14¼
No. 1	15 to 18 ffa. 40/45c.t.	lb. .13¾	.13¾
No. 2	22 to 25 ffa. 40/45c.t.	lb. .13¼	.13¼
Prime Edible Tallow under 1¾ ffa. 40/45c.t. N.Y.		lb. .11	.12¼
Tallow acidless		lb. .13½	.13½
Lard Stearine		lb. .19	.19
Oleo Stearine		lb. .10¾	.10¾
Neatsfoot Oil—			
Pure	bbls.	lb. .18½	.18½
Extra	do	lb. .14¼	.14¼
No. 1	do	lb. .13¾	.13¾
Cold pressed		lb. .18	.18½
Fish Oils—			
Menhaden Oil Light pressed		gal. .75	.70
White		gal. .81	.75
Yellow bleached		gal. .78	.73
*Herring tank cars coast		gal. .40	.40
Whale, extra winter bleached		gal. .80	.80
Seal		gal. Nominal	
Naval Stores—			
Turpentine, N. Y.		gal. .94	.94
Turpentine†		gal. .88	.88
Rosin B. N. Y.		Bbl. 8.40	8.40
Rosin F. N. Y.		Bbl. 8.45	8.45
Rosin B†		Bbl. 7.10	7.15
Rosin F†		Bbl. 7.10	7.25
Rosin Oil 1st run		gal. .49	.48
Rosin Oil 2nd run		gal. .51	.51
Pine Tar—			
Kiln Burnt		Bbl. 13.50	13.50
Retort		Bbl. 13.50	13.50

†Savannah, Ga. market.
*Nominal.

Caustic Soda Firmer; Acid Spotty

NEW YORK, Feb. 9.—Following is a review of the markets for oils and supplies used in compounding and refining:

Linseed Oil

Demand less spirited and prices trifle easier. Big paint and linoleum makers holding off. Tendency in seed easier. Stocks of spot oil fair. Boiled oil in better demand.

Animal Oils

Tendency easier. Lard oil demand lagging and stocks are large. Degras dull and easy. Oleo stearine quiet with buyers holding off. More interest in horse oil at 10½ cents.

Fish Oils

Refined menhaden oils up 5 cents a gallon, reflecting improved demand. Light pressed is moving much more freely. Whale oil is dull. Little interest in sperm oil.

Caustic Soda

Contract demand for caustic soda is more spirited and prices are firmer. Stocks moderate. More interest is shown in spot deliveries. Export inquiries more numerous.

Soda Ash

Inquiries numerous but activity chiefly against contracts. Export buyers holding off.

Sulfuric Acid

Request for sulfuric acid is spasmodic and light. Buyers are inquiring more actively but are purchasing cautiously.

Bleaching Powder

Buyers inquiry more actively. Demand is better than expected and prices are well maintained.

Gulf Coastal More Active

HOUSTON, Feb. 7.—Jobbers are coming into the Gulf Coastal lubricant market for future requirements and sales managers are finding it less difficult to move the curent production of their plants. This condition is the result of a belief that Gulf Coastal crude oil prices will be advanced 25 cents more in the next few weeks. Stocks of oils are not burdensome.

Cargoes Clearing From N. Y.

Date	Destination	Product	Quantity
Jan. 24	Cape Town	Ref. Pet	1,550 cases
Jan. 24	Algoa Bay (Afr.)	Ref. Pet.	2,750 cases
Jan. 24	Algoa Bay	Naphtha	4,450 cases
Jan. 24	East London (Afr.)	Lubes	1,375 cases
Jan. 24	East London	Gasoline	9,000 cases
Jan. 24	East London	Ref. Pet.	1,500 cases
Jan. 24	Port Natal (Afr.)	Naphtha	13,000 cases
Jan. 24	Port Natal	Ref. Pet.	14,924 cases
Jan. 24	Delagoa Bay (Afr.)	Ref. Pet.	14,000 cases
Jan. 24	Delagoa Bay	Naphtha	14,735 cases
Jan. 23	Port au Prince	Ref. Pet.	2,000 cases
Jan. 27	Antwerp	Lubes	365,995 gals.
Jan. 27	Rouen	Lubes	1,119,093 gals.
Jan. 23	Puerto Cabello	Ref. Pet.	110 cases
Jan. 23	Puerto Cabello	Naphtha	700 cases
Jan. 23	Kobe	Lubes	1,932 drums
Jan. 23	Dauen	Gasoline	60,500 cases
Jan. 23	Dairen	Ref. Pet.	4,500 cases
Jan. 23	Taku Bar	Gasoline	26,500 cases
Jan. 23	Taku Bar	Ref. Pet.	10,000 cases
Jan. 23	Shanghai	Lubes	1,500 drums
Jan. 22	Melbourne	Gasoline	5,000 cases
Jan. 22	Bunburg	Ref. Pet.	6,000 cases
Jan. 22	Bunburg	Naphtha	7,275 cases
Jan. 22	Port Pirie	Ref. Pet.	6,499 cases
Jan. 22	Port Pirie	Naphtha	17,425 cases
Jan. 22	Fremantle	Ref. Pet.	5,500 cases
Jan. 22	Fremantle	Naphtha	6,117 cases

OIL STOCKS AND FINANCES

American Republics Corp. Has Better Year

NEW YORK, Feb. 7.—American Republics Corp. reports net income of $2,648,667 in 1924 after all charges including federal taxes. This amount was equivalent after preferred dividends to $9.75 a share on the no-par common. Earnings in 1923 were equivalent to $7.01 a share on the common stock.

American Republics Corp. is a holding corporation, which controls the American Petroleum Co., Federal Petroleum Co., Papoose Oil Co., Republic Production Co., Petroleum Iron Works Co.'s of Ohio and Pennsylvania, Pennsylvania Tank Line, Petroleum Supply Co. and others. J. S. Cullinan is president.

In the fourth quarter of 1924 net income was at the rate of $2.27 a share on the common as against $1.51 in the preceding quarter and $2.14 in the last quarter of 1923.

Income accounts for 1924 and 1923 compare

	1924	1923
Sales	$24,458,469	$24,958,352
Cost of sales	21,025,836	22,150,247
Oper. profit	$3,432,633	$2,808,105
Charges	650,366	599,796
Fed. tax. res.	133,600	105,375
Net income	$2,648,667	$2,102,934
Pfd. dividends	700,000	700,000
Surplus	$1,948,667	$1,402,934

Consolidated balance sheets as of Dec. 31, 1924 and 1923, compare.

Assets

	1924	1923
Prop. acc.*	$35,928,237	$35,496,655
Contracts	500,000	500,000
Accts. bills rec.	2,663,088	2,919,500
Inter-co. recvs.	8,631,265	9,166,382
Cash	1,415,849	1,148,990
Inventories	3,513,200	5,012,038
Marketable secur.	5,359,992	5,279,300
Def. charges	987,884	818,636
Accrued funds	2,096,030	49,080
Total	$61,095,545	$60,390,581

Liabilities

Pfd. stock	$10,000,000	$10,000,000
Common stock†	20,200,000	20,200,000
Accrued exps.	368,414	435,139
Inter-co. payable.	8,544,083	8,985,109
Bills & accts. pay.	1,339,220	3,175,138
Bond & trust ctfs.	9,593,000	8,752,000
Reserves	2,306,697	2,308,709
Surplus	8,734,131	6,534,486
Total	$61,095,545	$60,390,581

*Less depreciation.
†Represented by 200,000 shares no par.

Pays Stock Dividend

INDEPENDENCE, KAN., Feb. 6.—Red Star Oil Refining Co. of Independence, which was organized two years ago, has declared a 20 per cent stock dividend. The company's products are distributed in a territory north as far as Kansas City, east to Joplin, Mo., west to Wichita and south to Ponca City.

Cleveland Stock Market

February 6

	Par	Bid	Asked	High	Low
Canfield Oil Co.,pfd.	$100	96	100	100	95
Fred G. Clark Co...	10	4⅛	7	4	2
National Refin. Co..	25	40	44½	39	33¾
do pfd.....	100	127¼	.....	127¼	116
Paragon Refin. Co..	25	6	6½	6	5¼
do pfd.....	100	45½	60	75	40

x—Ex dividend

Oil Dividends

	Amount	Payable	Stock of Record
Imperial (new)	25c	Mar. 2	Feb. 14
Southern P.L. q.	$1	Mar. 2	Feb. 14
S.O. California q.	50c	Mar. 16	Feb. 16
S.O. Indiana q.	62½c	Mar. 16	Feb. 16
Texas Co. q.	75c	Mar. 31	Mar. 6
Vacuum Oil Co. q.	50c	Mar. 20	Feb. 28
do. extra	50c	Mar. 20	Feb. 28

Financial Notes

Borne-Scrymser Co.—Annual meeting to be held Feb. 24 at Elizabeth, N. J.

Standard Oil Co., New York—Employes may subscribe to stock during first quarter of 1925 at $43 a share. Price during last two previous quarters was $39 a share.

Sinclair Crude Oil Purchasing Co.—$50,000,000 3-year 6% gold coupon notes, series A, due Feb. 1, 1928, admitted to New York Stock Exchange.

Middle States Oil Corp.—Empire Trust Co. certificates of deposit for $29,800,220 capital stock admitted to New York Stock Exchange on official notice of issuance in exchange for outstanding temporary certificates.

Magnolia Issues Bonds; To Redeem Others

NEW YORK, Feb. 6.—Magnolia Petroleum Co. has issued through the National City Co. $15,000,000 serial 4½ per cent gold debentures and will redeem on July 1 next, all of the outstanding $8,500,000 first mortgage 6 per cent bonds due July 1, 1937.

The debentures will mature $1,500,000 annually over a period of 10 years and are offered at prices to yield 4.25 to 4.9 per cent. The only other security of the company outstanding, John Sealy, chairman of the board, said in a letter to the bankers, is the common stock of a par value of $180,247,100, but which has a market value of more than $280,000,000. The Standard Oil Co. of New York owns 69 per cent of this stock, its holdings, however, being non-voting.

Fred G. Clark Reports Profit for 1924

CLEVELAND, Feb. 6.—Fred G. Clark Co. reports net earnings of $31,928 for 1924 after setting up reserves for depreciation and doubtful accounts. This showing was made, according to President Fred G. Clark in a letter to stockholders, in spite of the depressed conditions in the oil industry last year and a decline in gross sales of $280,000. Gross profit, however, was greater, due to a reduction in sales, general and administrative expenses.

The Conewango Refining Co., Mr. Clark reported, held its ground during the year which was unfavorable to Pennsylvania refiners, due largely to inability to secure crude oil.

All claims against the Clark company, he says, have been disposed of and that the new year was entered with a clear slate, thereby reducing legal expenses. The only claim against the Conewango is one pertaining to federal taxes which is in process of adjustment.

Mr. Clark says the 1925 outlook is very promising.

The balance sheets of Jan. 1, 1925 and 1924, compare:

ASSETS

	1925	1924
Cash	$ 94,911	$ 22,091
Notes, acc'ts rec.	432,137	431,440
Investments	757,212	757,212
Merchandise inv.	183,303	170,634
Equipment	173,921	163,206
Deferred items	16,132	11,622
Total	$1,657,616	$1,556,205

LIABILITIES

Notes, acc'ts payable	$ 700,314	$ 638,510
Reserves	133,941	125,644
Capital stock	600,000	600,000
Surplus	223,361	192,051
Total	$1,657,616	$1,556,205

Canfield Oil Pays Extra Dividend

CLEVELAND, Feb. 6.—An extra dividend of 2 per cent in cash on the common has been declared by Canfield Oil Co. in addition to the regular dividend of 1½ per cent. Regular quarterly dividend of 1¾ per cent on the preferred also has been declared.

At the annual meeting the following directors were re-elected: C. G. Barkwill, O. M. Stafford, L. S. Sheets, E. S. Barkwill, G. P. Koelliker, Louis Carruth Charles McLean, H. M. Carruth, and J. A. Jackson.

The directors re-elected these officers: Louis Carruth, president; Mr. McLean, vice-president; C. G. Barkwill, second vice-president; H. M. Carruth, secretary, and Mr. Jackson, treasurer.

President Carruth said the officers looked forward hopefully to a successful business in 1925.

Transactions In Oil Shares on New York Stock Exchange

1924 High	1924 Low	1925 High	1925 Low		Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended Feb. 7 Sales	First	High	Low	Last	Ch'ge
48	25	66¼	48	(sh)	200,000	N.P.	American Republics	.....	.....	1,300	63	63½	63	63½	— ½
34⅝	27½	39½	33	$	56,000,000	$25	Associated Oil	37½cQ	Jan. 26, 25	26,700	39⅜	*39½	37¾	38	—1
140⅛	78½	117½	95½		50,000,000	100	Atlantic Refining	.....	June 16, 24	8,300	116⅜	*117½	115	116½	+ ¾
118	108	114¾	113½		20,000,000	100	do pfd	$1¾Q	Feb. 2, 25	300	114¼	114¼	114¼	114¼	+ ¼
28¼	14	28	21½		13,000,000	25	Barnsdall Corp. A	.....	Apr. 30, 21	79,700	26	*28	25¾	27⅜	+1⅜
17½	10	23	17½		3,713,270	25	do B	.....	Apr. 30, 21	3,200	21½	*23	21½	22¼	+1
4¼	1	2⅜	1⅞	(sh)	150,000	N.P.	Caddo Central O. & R	.....	.....	1,200	1¾	2⅛	1¾	1⅞	+ ⅛
29¼	19½	30	28⅞	$	17,377,000	$25	California Petroleum	43¾cQ	Dec. 1, 24	104,500	28¾	*30	28⅛	29	+ ⅛
107	92½	108¼	100		11,955,100	100	do pfd	$1¾Q	Jan. 2, 25	2,700	106½	*108¼	106	106½	— ⅛
40¼	22⅝	35⅜	26¾	(sh)	1,257,800	N.P.	Cosden & Co	.....	Aug. 1, 23	77,700	35	*35⅜	33⅝	33¾	—1½
95	80	90¼	83	$	6,998,000	$100	do pfd	$1¾Q	Dec. 1, 24	1,100	88¾	*90¼	88¾	90	+2½
63⅜	31⅜	63¾	56⅜		19,832,000	100	General Asphalt Co	.....	.....	14,000	60¾	61¼	58	58⅜	—2⅛
100	71½	100	95½		7,416,000	100	do pfd	$1½Q	Dec. 1, 24	200	100	100	97	97	—3
45	38⅜	52⅜	42		28,860,150	25	General Petroleum	50cQ	Dec. 15, 24	145,600	48	*52⅜	47½	51⅜	+3½
82½	61	85	77½		25,000,000	100	Houston Oil Co	.....	.....	16,400	83⅜	84½	82	82⅞	— ¼
16¼	5¾	26½	13½	(sh)	450,000	N.P.	Independent Oil & Gas	25cQ	Dec. 31, 24	202,700	23¼	*26½	23¼	25¾	+3
7⅛	3¼	10⅜	5½	$	7,830,450	10	Indian Refining Co	.....	Dec. 15, 20	32,700	7⅜	*10⅜	7⅜	9⅜	+2⅜
75	60	95	80		2,296,400	100	do pfd	.....	Dec. 15, 21	200	91	92⅜	91	92⅛	—2⅜
1	¼	1¼	⅝		1,649,390	$10	Kansas & Gulf Corp	.....	.....	1,400	1	1	1	1	0
.....	.....	23¾	16¾	(sh)	715,944	N.P.	Louisiana Oil Refining	.....	.....	77,500	21¾	*23¾	21⅜	22½	+1
37½	24⅝	35½	27⅜	(sh)	324,300	N.P.	Maracaibo Oil	.....	.....	26,400	35⅛	35⅛	33	33¼	—1¾
42	29	46¼	38¼	(sh)	1,649,477	N.P.	Marland Oil Co	.....	July 1, 23	131,000	46	46⅛	43⅝	43¾	—1⅞
190	190	225	225	$	45,942,800	$100	Mexican Petroleum Co	$3Q	Jan. 20, 25	10	225	225	225	225	0
.....	.....	.....	.....		12,000,000	$100	do pfd	$2Q	Jan. 20, 25	.....	.....	.....	.....	.....	.....
25¾	14⅜	22½	15	(sh)	945,989	N.P.	Mexican Seaboard Oil	.....	Nov. 15, 24	14,100	17	17⅛	16⅛	16¼	— ¾
6⅜	1	1⅜	1⅛	$	29,800,220	$10	Middle States Oil Corp	.....	July 1, 23	9,900	1⅜	1⅜	1½	1⅜	+ ⅛
58¼	45	65¼	53¾	(sh)	3,500,000	N.P.	Pacific Oil Co	$1S.A.	Jan. 20, 25	91,300	65	65	62⅝	63	—1½
65	44¾	75⅞	64	$	48,292,450	$50	Pan American P. & T	$1Q	Jan. 20, 25	48,300	72	*75⅞	71½	74½	+3⅛
64⅝	41¼	76	63⅜		86,991,700	50	do Class B	$1Q	Jan. 20, 25	282,700	71⅞	*76	71½	74¾	+2¾
4⅜	1⅝	5⅜	3	(sh)	198,770	N.P.	Panhandle P. & R	.....	.....	1,200	5	5⅛	4¾	4¾	— ¼
42½	29	50¼	43	$	2,935,200	$100	do pfd	.....	July 2, 23	.....	.....	.....	.....	.....	.....
42½	28½	46⅜	36⅜	(sh)	1,849,896	N.P.	Phillips Petroleum	50cQ	Jan. 2, 25	120,400	46¼	*46⅜	43¾	44⅛	—1⅜
4½	1½	3⅝	1¾	$	29,622,925	$25	Pierce Oil Corp	.....	.....	28,300	2½	* 3⅝	3⅛	3⅛	+ ⅛
36	20	37⅛	25½		15,000,000	100	do pfd	.....	Feb. 1, 22	3,300	34½	*37⅜	34½	36¼	+2¾
5¾	4⅜	8¼	5¾	(sh)	2,500,000	N.P.	Pierce Petroleum	.....	.....	109,200	7	* 8¼	7	7⅜	+ ⅛
43½	22¾	32⅝	27¾	$	11,467,850	50	Producers & Refiners	.....	Sept. 15, 23	14,400	32⅝	*32⅝	30¼	30⅜	—1¾
47½	42	47⅝	43½		2,845,350	50	do pfd	87½cQ	Nov. 3, 24	300	47	*47⅝	47	47⅜	+ ⅛
30¼	20	33¾	29¼		71,316,575	25	Pure Oil Co	37½cQ	Dec. 1, 24	58,100	33	*33¾	32	32¼	— ⅛
105¼	92	106¼	104⅜		13,000,000	100	do 8% pfd	$2Q	Jan. 2, 25	4,100	106¼	*106¼	105⅞	105⅞	— ⅛
59½	40⅜	57⅜	51⅜	(sh)	728,141	13.40	Royal Dutch, N. Y. shares	$3.18½	Aug. 12, 24	81,200	56¾	57¼	55½	55⅜	—1⅜
42	33	45¾	41	(sh)	123,120	£2	Shell Transport & T	95c	Jan. 24, 25	3,000	44⅞	45½	43⅝	43⅝	—1⅜
22½	15¾	28⅜	22½	(sh)	10,000,000	N.P.	Shell Union Oil Corp	25cQ	Dec. 31, 24	135,600	27⅞	*28⅜	27¼	27½	— ⅜
99½	91½	101½	99½	$	20,000,000	$100	do pfd	$1½Q	Nov. 15, 24	1,200	99¾	101⅜	99¾	101	+ ⅛
24	10⅜	26¾	20⅞		7,205,060	10	Simms Petroleum Co	50Q	Jan. 2, 25	20,500	23⅝	23¾	22⅝	22⅞	— ⅛
27⅛	15	24⅞	17	(sh)	4,481,282	N.P.	Sinclair Consolidated	.....	May 31, 24	133,500	24½	*24⅞	22½	22½	—1¾
90	75	94⅝	78¾	$	18,541,100	$100	do pfd	$2Q	Nov. 15, 24	2,200	*93	**94⅛	*92	*92	+1
29	17⅛	30½	24⅛		25,654,000	25	Skelly Oil Co	.....	.....	147,000	29¾	*30½	29¼	29¼	0
68⅛	55½	67¼	61⅝		235,228,425	25	S. O. California	50cQ	Dec. 15, 24	55,800	66⅞	*67¼	65½	65¾	— ⅛
42¼	33	47½	40¾		507,301,775	25	S. O. New Jersey	25cQ	Dec. 15, 24	112,000	47¼	*47½	45¼	45¾	—1¼
119⅛	115¾	118¾	116¾		199,972,900	100	do pfd	$1¾Q	Dec. 15, 24	3,700	116⅞	118⅛	116⅞	118⅛	+1⅜
8⅛	2⅜	5⅞	4⅞	(sh)	1,112,268	N.P.	Superior Oil Corp	.....	Dec. 20, 20	15,200	5¾	* 5⅞	5½	5¾	0
45⅛	37¾	49	42¾	$	164,450,000	$25	The Texas Co	75cQ	Dec. 31, 24	38,200	49	*49	47⅛	47⅝	—1
15¼	8	23⅜	11½		8,380,340	10	Texas Pacific Coal & Oil	.....	June 30, 23	187,500	18	*23⅜	17¾	21¾	+4
151	116¼	149	130		50,004,000	100	Tide Water Oil Co	$1Q	Dec. 31, 24	6,500	148⅞	*149	143	145½	—3
6¼	3¾	5½	3⅞	(sh)	3,132,529	N.P.	Transcontinental Oil Co	.....	.....	65,900	5⅛	5¼	5	5	— ⅛
39	35	43⅜	37¼	$	40,480,800	$25	Union Oil of California	45cQ	Feb. 10, 25	70,000	42¾	*43⅜	41⅝	41⅞	— ⅛
132⅝	94	127⅜	118½		18,115,000	$100	Union Tank Car Co	$1¼W	Dec. 1, 24	500	122	122	121	121	0
116¾	106¼	116⅛	114		12,000,000	100	do pfd	$1¾Q	Dec. 1, 24	100	115¾	115¾	115¾	115¾	— ¼
29⅜	23⅛	31¾	28	(sh)	460,000	N.P.	White Eagle Oil & Ref	50cQ	Jan. 20, 25	18,200	31½	*31¾	30⅛	30	—1⅜

*New High †New Low xEx-Dividend Total Sales 2,838,210

Standard Oil Stock Traded In New York Curb Market

1924 High	1924 Low	1925 High	1925 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions week ended Feb. 6 Sales	First	High	Low	Last	Ch'ge
18¾	14⅜	20⅜	18	£3,000,000	£1	Anglo American	55cS.A.	May 15, 24	20,200	19¾	*20⅜	19¼	19¾	+ ⅛
4⅞	2	4	2¾ (sh)	500,000	N.P.	Atlantic Lobos	.....	.....	2,000	3½	3¾	3¼	3¼	— ¼
16	5	10¾	7 $	10,000,000	$10	do pfd	.....	.....	500	10	10	10	10	— ¾
265	155	239	225	1,000,000	$100	Borne-Scrymser	$4S.A.	Oct. 15, 24	50	239	*239	235	236	+9
85½	51	72	62	10,000,000	50	Buckeye Pipe Line	$1Q	Dec. 15, 24	720	69¾	72	63	66	—3
52½	47⅜	55½	48½	3,000,000	25	Chesebrough Mfg. Co	62½cQ	Dec. 29, 24	2,200	52	*55½	52	55	+2¾
115	112	114	114	1,000,000	100	do pfd	$1¾Q	Dec. 29, 24	.....	.....	.....	.....	.....	.....
54⅞	39¾	.....	.....	10,000,000	25	Continental Oil	50cQ	Dec. 15, 24	.....	.....	.....	.....	.....	.....
.....	.....	31⅛	25½	.....	$10	Continental New V. T. C	.....	.....	129,700	30	*31⅛	29⅝	29⅞	— ⅛
20	11¼	15⅜	14	1,500,000	25	Crescent Pipe Line	.....	Sept. 15, 23	500	15	*15⅜	15	15⅜	+ ⅛
149	110¾	150	135½	3,000,000	100	Cumberland Pipe Line	$3Q	Dec. 15, 24	300	147½	*150	146	147	+2
105	74	96	86	5,000,000	100	Eureka Pipe Line	$2Q	Oct. 31, 24	300	94	94	83	83	—13
69¼	52	65	56¾	16,000,000	100	Galena Signal Oil	$1Q	Dec. 31, 24	1,500	62	*65	62	65	+4¼
113	100½	104½	102	4,000,000	100	do new pfd	$2Q	Dec. 31, 24	10	100	100	100	100	—2
116	110	.....	.....	2,000,000	100	do old pfd	$2Q	Dec. 31, 24	.....	.....	.....	.....	.....	.....
43¼	34½	47¾	42½	43,750,000	25	Humble Oil & Ref	30cQ	Jan. 1, 25	18,700	45¼	*47¾	45¾	47⅛	+1⅜
161	120	154½	127	20,000,000	100	Illinois Pipe Line	$6S.A.	Dec. 30, 24	480	145	150	145	146	+4
119	98½	134¾	119½	39,222,750	25	Imperial Oil Coupons	75cQ	Dec. 1, 24	6,250	132	*134¾	124	126	—5½
.....	.....	34⅜	30½	.....	$25	Imperial New w. i	.....	.....	28,400	33¼	*34⅜	31¾	31½	— ¾
100	66	84	73	5,000,000	50	Indiana Pipe Line	$2Q	Nov. 15, 24	380	82½	83¾	78	78	—5
24¼	16¾	28¾	23 (sh)	7,118,138	N.P.	International Petroleum	25c	Nov. 29, 24	186,700	25⅝	*28¾	25½	28⅛	+2⅝
162	122	159	137 $	188,000,000	100	Magnolia Petroleum	$1Q	Jan. 5, 25	2,170	157	*159	155½	155½	—1½
25⅝	20⅝	25½	23	6,362,500	12½	National Transit	50cQ	Dec. 15, 24	1,800	25	25¼	23½	23½	—1⅝
97	54½	79	65½	5,000,000	100	New York Transit	50cQ	Jan. 15, 25	160	74½	76	73	73	—2
107½	72	88	81½	4,000,000	100	Northern Pipe Line	$3S.A.	Jan. 1, 25	280	87	*88	86	86	0
79½	55	75	64	60,000,000	25	Ohio Oil Co	50cQ	Dec. 31, 24	8,300	74	75	72¾	74	+ ¼
43	27	44	35¾	10,000,000	25	Penn.-Mex. Fuel	.....	.....	7,010	38⅜	*44	38⅜	42½	+4⅜
269	193	259½	209	60,000,000	100	Prairie Oil & Gas	$2Q	Jan. 31, 25	3,170	256	259½	246	248½	—6½
54¼	49½	65½	52¾	.....	$25	Prairie O. & G. New w. i	.....	.....	20,100	64½	*65½	61½	62⅜	—1¾
111	100	126	106	81,000,000	100	Prairie Pipe Line	$2Q	Jan. 31, 25	5,500	121	125¾	120½	120½	+ ½
230	175	259	200	4,000,000	100	Solar Refining Co	$5S.A.	Dec. 20, 24	260	254	*259	238	242	+14
100	80½	103	84½	10,000,000	100	Southern Pipe Line Co	$2Q	Dec. 1, 24	750	99	99½	†84½	86	—14
171	117	197	139	20,000,000	100	South Penn Oil Co	.....	Sept. 30, 22	2,630	191	194½	181	183½	—6½
89	68	84	76	3,500,000	100	Southwest Pa. Pipe Lines	$1Q	Dec. 31, 24	40	83	83	83	83	— ½
68⅛	54¼	70	62⅝	221,706,668	25	S. O. Indiana	62½cQ	Dec. 15, 24	128,300	68½	*70	68½	68⅞	+ ⅛
50¼	32½	46	37	8,000,000	25	S. O. Kansas	.....	June 16, 24	6,500	44⅞	*46	42½	43⅜	— ⅝
121¼	101	124¾	117½	16,784,047	25	S. O. Kentucky	$1Q	Dec. 31, 24	5,400	124	*124¾	120	121	—2⅝
262	198	270	244	3,000,000	100	S. O. Nebraska	$5S.A.	Dec. 20, 24	760	270	270	255	255	—13
48	37¾	48⅝	44¼	225,324,650	25	S. O. New York	35cQ	Dec. 15, 24	31,400	48⅜	*48⅝	46½	46⅞	—1⅝
377½	275	369	338	14,000,000	100	S. O. Ohio	$2½Q	Jan. 1, 25	360	359	368	353	353	—11
336	115	118	117½	7,000,000	100	do pfd	$1¾Q	Dec. 1, 24	10	117½	117½	117½	117½	—1½
81	20	27	22	1,722,931	100	Swan & Finch	.....	Nov. 1, 19	350	25½	26	24½	24¾	— ¾
88½	56½	96¼	80⅛	61,523,075	25	Vacuum Oil Co	50cQ	Dec. 20, 24	34,500	90¼	*96¼	90¼	91½	+1⅜
30	25	30½	30	100,000	10	Washington Oil Co	.....	Jan. 31, 22	20	30	30	30	30	0

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New York Curb Bonds

Week Ended Feb. 6

	High	Low	Last	Ch'ge
Cities Serv. 7s B	171	168½	171	+5⅞
do 8s C	125	120⅞	125	+4½
do 7s D	104½	102½	104½	+2
Galena S.O.7s	105⅜	105¼	105½	+ ¼
Gen. Petr. 6s	101⅜	101	101⅜	+ ⅝
Gulf Oil 5s	99⅝	98¾	99⅝	+ ⅝
Pennok Oil 6s	98	97¼	98	0
Phillips Petr. 7½ w.w.	104½	104½	104½	+ ½
Pure Oil 6½s	100⅝	100	100⅝	+ ⅝
S.O.N.Y.6½s	108	107⅝	107¾	— ⅛
Sun Oil 5½s	97	96½	96⅝	— ⅜
Tidal Osage 7s	104½	103½	104	0
Union Oil Calif. 6s '26.	101	101	101	0
Vacuum Oil 7s	107⅛	106⅞	107	0

New York Bonds

Week Ended Feb. 7

	High	Low	Last	Ch'ge
Atlantic Refg debs 5	99⅛	98½	98⅝	+ ⅛
Barnsdall Corp. 8s	105	104½	105	+ ¾
Calif.Petrol.sf 6½	103⅛	102⅞	103	0
Empire G. & F. 7½s	101	100	101	+ ⅛
Humble O. & R. 5½s	101	100½	101	+ ⅛
Marland 8s ser A	106	106	106	0
do 8s w.w	135	130	135	0
Pan Amer. Petr. & Trans 6s	111¼	109⅛	110¼	+ ⅜
do 7s	106	104¾	105	— ½
Pierce Oil debs 8s	103½	103	103½	0
Prod. & Refrs. 8s	110⅜	110	110	0
Sinclair Con. col 7s	95½	94⅛	94⅛	—1
do 6s	120	114½	114½	—3½
do 6½s	90¾	90	90⅛	0
Sinclair Crude 6s	101	99½	100	—1
do 6s	100½	100½	100½	0
do 5½s	102⅜	102	102	+ ⅛
Sinclair P.L.sf 5s	86	84¾	85¾	+1¼
Skelly Oil 6½s	120¾	117½	118	+1½
Tidewater Oil 6½s	104	103	104	+ ¾
Union Oil of Calif. 6s	103	102½	102½	— ½
do 5s	100	99¾	100	+ ⅛
Union Tank Car 7s	104½	103¾	104½	+ ¾

New York Curb Market

1924 High	1924 Low	1925 High	1925 Low	Par Value	Stocks	Transactions week ended Feb. 6 Sales	First	High	Low	Last	Ch'ge
....	.....	4	2¾	....	Amer. Maracaibo	21,100	3	* 4	2¾	4	+1
7	4	8⅜	5½	10	Ark.Nat.Gas	5,400	7½	* 8⅜	7¼	7¼	— ½
1⅜	.75	.....	.....	1	Boston & Wyo	.....	.....	.....	.....	.....	.....
6⅜	2¾	4½	3⅜	25c	Carib.Synd	7,400	4¼	* 4½	4⅛	4⅜	+ ⅛
190	132	209	176½	100	Cities Service	6,690	194	*209	192	209	+16
82⅞	67¾	82	80¼	100	do pfd	4,000	81¾	*82	81½	82	+ ¼
7¾	6⅛	7⅝	7⅜	10	do pfd. B	3,100	7⅜	7½	7⅜	7⅜	— ⅛
19	13¼	21	17⅝	10	do Bkrs. Sn	3,600	19⅜	*21	19⅜	21	+2
10⅝	2¼	10½	8¼	N.P.	Creole Synd	9,400	10	10	9¾	9¾	— ⅛
8	1½	6	4½	N.P.	Derby Oil & Ref	1,700	5⅜	* 6	5½	5¾	+ ⅛
34¼	17½	26	25	N.P.	do pfd	100	25	†25	25	25	—1
.60	.12	.23	.20	5	Federal Oil	1,000	.20	.20	†.20	.20	—.05
.60	.15	.27	.20	10	Glenrock	5,000	.22	†.27	.21	.25	+.01
67⅜	56	71	65⅛	25	Gulf Oil Corp	20,800	69⅞	*71	68⅞	69⅞	+ ⅜
7	1⅛	5⅞	2¾	N.P.	Kirby Petroleum	15,000	3⅛	4⅜	3⅛	4¼	+1¼
6¾	2⅞	6¼	5⅛	N.P.	Lago Petroleum	51,000	5½	6	5⅜	5⅞	+ ½
4⅞	1½	4¼	1¾	N.P.	Marland of Mexico	3,400	3¾	* 4¼	3¼	3¼	— ¾
20¾	16	20⅛	18⅜	10	Mountain Prod	17,800	20	20¼	19¾	19⅞	— ⅛
14	9½	14⅝	11⅞	5	Mutual Oil ctfs	.....	.....	.....	.....	.....	.....
6¼	3½	5	3⅜	5	New Bradford Oil	4,000	4¾	* 5	4⅜	4⅞	+ ⅜
44	17	24¾	20	10	New England Fuel	100	21¾	21¾	21¾	21¾	+1¾
14	8⅛	9⅞	8½	25	New York Oil	500	9	9¾	8¾	8¾	— ¼
33⅛	29⅜	33¾	31⅜	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
.80	.50	.....	.....	10	Omar O. & G	.....	.....	.....	.....	.....	.....
6	.70	1¾	1¼	N.P.	Peer Oil Corp	8,000	1½	1⅝	1¼	1⅜	— ⅛
18¼	12¼	25	16	10	Pennok Oil	2,300	23¼	24	20⅞	21	—2¾
57¾	53¾	32½	22½	25	Red Bank Oil	2,200	26	26	24	24⅝	—2⅛
5½	3	6⅞	3½	N.P.	Ryan Consolidated	9,400	6¾	* 6⅞	5½	6⅛	— ⅛
10¼	6	8	6½	10	Salt Creek Cons	4,200	7⅜	* 8	7¼	7¾	+ ¼
27½	19⅛	26	24	10	Salt Creek Prod	11,800	25⅜	25½	25	25	— ½
2½	.80	2	1⅛	5	Sapulpa Refining	.....	.....	.....	.....	.....	.....
1½	.30	.....	.....	5	Seaboard O. & G	.....	.....	.....	.....	.....	.....
16¼	6¼	13¾	10	10	Tidal Osage	1,100	10⅝	*13¾	10⅝	13¾	+3¼
4⅛	2⅝	4	3⅜	....	Venezuelan Pet	9,200	4	4	3¾	4	.....
8½	4⅝	7¾	5¾	5	Wilcox Oil & Gas	47,200	7¼	* 7¾	6⅞	6⅞	— ⅛
13⅞	4¾	6⅞	5	N.P.	Woodley Petroleum	2,400	6	* 6⅞	6	6⅞	+ ⅛

Pittsburgh Stock Exchange

1923 High	1923 Low	1924 High	1924 Low	Par Value	Stocks	Transactions Week Ended Feb. 6 Sales	First	High	Low	Last	Ch'ge
10	4¼	7	4	10	Ark. Nat. Gas	16,107	8	8⅛	7⅛	7¼	— ¾
53¾	38	40½	35¾	N.P.	Columbia Gas	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	$100	Duquesne Light pfd	30	107	107	107	107	+1
.....	.....	30	30	25	Fayette County Gas	.....	.....	.....	.....	.....	.....
27	22¾	33¼	26¼	25	Lone Star Gas	3,811	35	36⅛	34¼	36⅛	+1¼
58	51	60¾	51	50	Manuf. L. & H	.....	.....	.....	.....	.....	.....
.....	.....	33¼	28¼	25	Ohio Fuel Corp	6,519	34	34	33¾	34	+1½
19	11	16½	11¼	1	Ohio Fuel Oil	3,274	14¾	16	14½	15¼	+1
66	30¾	40¾	31½	25	Ohio Fuel Supply	.....	.....	.....	.....	.....	.....
24	18¾	28½	22¾	25	Okla. Nat. Gas	1,175	29½	29¾	28½	29¼	— ⅝
10½	5¾	9¾	6	5	Pittsburgh O. & G	2,025	8⅛	8¾	8⅛	8⅜	+ ⅛
14	8¾	10½	6	10	Salt Creek Cons	1,907	7¾	8¼	7¾	8⅛	+ ⅜
18½	7	16½	9	10	Tidal Osage	5,725	10½	13⅛	10½	13	+2½
.....	.....	92	92	100	do pfd	.....	.....	.....	.....	.....	.....
29½	25¾	35½	27¼	25	Union Nat. Gas	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....

Pittsburgh Curb Market

1923 High	1923 Low	1924 High	1924 Low	Par Value	Stocks	Transactions Week Ended Feb. 6 Sales	First	High	Low	Last	Ch'ge
.....	.....	2½	2½	N.P.	Arkansas Fuel w.i	.....	.....	.....	.....	.....	.....
.....	.....	14	14	25	Barnsdall B	.....	.....	.....	.....	.....	.....
1½	.22	.87	.20	5	Colombia Synd	3,400	1	1½	1	1½	+ ½
2¾	.26	.70	.25	5	Duquesne Oil	300	.40	.50	.40	.50	+.10
37	10	9½	5¼	10	Forest Oil	50	9	9	9	9	.....
1¾	1	.15	.15	1	Grant Oil	.....	.....	.....	.....	.....	.....
68	46½	66½	57	25	Gulf Oil Corp	100	70	70	70	70	0
24½	16¾	23¾	21	N.P.	International Pet	.....	.....	.....	.....	.....	.....
.....	.....	4½	4½	N.P.	Lago Petroleum	.....	.....	.....	.....	.....	.....
.....	.....	66	64¾	50	Manuf. L. & H	.....	.....	.....	.....	.....	.....
8½	4	6	5	10	Marshall Oil	.....	.....	.....	.....	.....	.....
.36	.15	.39	.01	1	Mex. Wyoming	.....	.....	.....	.....	.....	.....
.....	.....	18	18	10	Mountain Prod	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	$5	Mutual Oil	.....	.....	.....	.....	.....	.....
.....	.....	30	29½	$25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
.....	.....	41¾	40	25	Ohio Fuel Supply	.....	.....	.....	.....	.....	.....
2¼	1¾	2¾	1¾	1	Oklahoma Eastern	4,410	2¾	2¾	2¼	2¾	0
2	.60	.77	.45	10	Omar O. & G	.....	.....	.....	.....	.....	.....
.....	.....	126	126	100	South Penn. Oil	.....	.....	.....	.....	.....	.....
22½	7	8	8	5	States Oil	300	5	5	5	5	0
.....	.....	14	10	10	Tidal-Osage,non-vot'g	.....	.....	.....	.....	.....	.....

*New High †New Low x Ex Dividend